REPORT RESUMES

ED 021 046 VT 002 890

A MODEL VOCATIONAL EDUCATION PROGRAM FOR THE SLOW LEARNER.
BY- KITZMILLER, RICHARD L.
FRANKLIN COUNTY SCHOOL BOARD, CHAMBERSBURG, PA.
PUB DATE JAN 67

EDRS PRICE MF-$1.00 HC-$9.44 234P.

DESCRIPTORS- *SLOW LEARNERS, EDUCABLE MENTALLY HANDICAPPED, *PROGRAM PLANNING, *VOCATIONAL EDUCATION, *AREA VOCATIONAL SCHOOLS, JOB ANALYSIS, COURSES, *CURRICULUM RESEARCH, LITERATURE REVIEWS, EMPLOYMENT OPPORTUNITIES, SURVEYS, BIBLIOGRAPHIES, DEMONSTRATION PROGRAMS, PENNSYLVANIA,

THE TERM "SLOW LEARNER" IS USED IN THIS REPORT TO DESIGNATE THE 18 TO 20 PERCENT OF SCHOOL CHILDREN WHO MEASURE APPROXIMATELY 50 TO 89 IQ ON INDIVIDUAL INTELLIGENCE TESTS. THE PURPOSES OF THE PROJECT WERE TO IDENTIFY AREAS OF VOCATIONAL OPPORTUNITY BEST SUITED TO THE ABILITIES AND INTERESTS OF THE SLOW LEARNER, ADOPT CRITERIA FOR OPTIMUM EDUCATIONAL INSTRUCTION, DESIGN A MODEL PROGRAM OF VOCATIONAL EDUCATION FOR THE SLOW LEARNER, AND DETERMINE THE STAFF AND FACILITIES NEEDED TO OPERATE A DEMONSTRATION PROGRAM FOR 1 YEAR. SCHOOL SUPERINTENDENTS, CONSULTANTS, GUIDANCE COUNSELORS, EMPLOYMENT COUNSELORS, AND A STATUS SURVEY OF AREA VOCATIONAL SCHOOLS PROVIDE INFORMATION ABOUT VOCATIONAL PROGRAMS. QUESTIONNAIRES AND RATING SCALES COMPLETED BY SPECIALISTS IN THE FIELD PROVIDED INFORMATION ABOUT JOB COMPLEXITY, CRITERIA FOR A SLOW LEARNER PROGRAM, AND AN EVALUATION OF COURSES. CONSULTANTS REVIEWED THE DATA AND MADE RECOMMENDATIONS FOR IMPLEMENTING A MODEL PROGRAM. IT WAS CONCLUDED THAT THE COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL SHOULD PROVIDE VOCATIONAL EDUCATION FOR THE SLOW LEARNER AND SHOULD OFFER MORE TRAINING IN (1) PACKING, STORING, AND HANDLING MANUFACTURED ITEMS, (2) OPERATING AUTOMOTIVE EQUIPMENT AND OFFICE MACHINES, AND (3) GENERAL MAINTENANCE AND PROCESSING. OF 17 COURSES EXAMINED IN THE STUDY, SIX OFFERED MANY AND SIX OFFERED SOME EDUCATIONAL OPPORTUNITIES FOR SLOW LEARNERS. DESCRIPTIONS OF COURSES TO BE OFFERED, LISTS OF JOBS RELATING TO THESE COURSES, AN ANNOTATED BIBLIOGRAPHY OF RESOURCE MATERIALS, SUMMARIES OF MEETINGS, THE INSTRUMENTS, AND DATA ARE INCLUDED IN 14 APPENDIXES. (PS)

ED021046

A MODEL
VOCATIONAL EDUCATION PROGRAM
FOR THE
SLOW LEARNER

Project OE-66-1223
Title III, Elementary and
Secondary Education Act

Franklin County School Board
Chambersburg, Pennsylvania

VT002890

> "The loss of only one year's income due to unemployment is more than the total cost of twelve years of education through high school. Failure to improve educational performance is thus not only poor social policy, it is poor economics."
>
> - John F. Kennedy

OFFICE OF THE COUNTY SUPERINTENDENT
FRANKLIN COUNTY
Chambersburg, Pennsylvania

January
1967

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

A MODEL VOCATIONAL EDUCATION PROGRAM
FOR THE
SLOW LEARNER

By Richard L. Kitzmiller
Director

Project OE-66-1223
Title III, Elementary and
Secondary Education Act

Study Consultant and Research Specialist
Dr. Michael A. Ciavarella

Research Specialists
Dr. Beaver S. Faust
Emma Selig Jones

Franklin County School Board
Chambersburg, Pennsylvania

James K. Gibboney
Superintendent

Consultants

John L. Cothorn
    Principal, The Carrollton School, Baltimore, Md.

Barbara H. Kemp
    Program Specialist, U.S. Office of Education.

Dr. Donald G. McGarey
    Professor of Education, The Pennsylvania State University.

Dr. Rudolph P. Matyas
    Assistant County Superintendent, Doylestown, Pa.

John M. Recklitis
    Director of Vocational Education, Penn Hills School District,
    Pittsburgh, Pa.

John W. Stahl
    Director, Area Vocational-Technical School, Yorktown Heights,
    New York.

Stephen Sworen
    Technical Education Specialist, Department of Public Instruction,
    Harrisburg, Pa.

Cooperating Guidance Counselors

Kenton Broyles
    Waynesboro Area Schools, Waynesboro, Pa.

Dr. David Duncan
    Shippensburg Area Schools, Shippensburg, Pa.

Margaretta Williams
    Greencastle-Antrim Schools, Greencastle, Pa.

Cooperating Employment Counselors

Melva H. Calaman
    Youth Opportunity Center, Harrisburg, Pa.

Charles Leidig
    Bureau of Employment Security, Chambersburg, Pa.

Anna Rodgers
    Youth Opportunity Center, York, Pa.

Richard Wright
    Youth Opportunity Center, Harrisburg, Pa.

CONTENTS

Preface vii

Achnowledgements ix

CHAPTER I - INTRODUCTION 1

The Problem 1

Background of Neglect: The Slow Learner in American Schools 2

Mid-Twentieth Century Resistance to the Teaching of Employable Skills. 4

The Vocational Education Act of 1963: A New Beginning for the Slow Learner 5

Implementing the Act in Pennsylvania: The Commonwealth Sets Its Goals. 7

Implementing the Act Locally: A Model Vocational Education Program for the Slow Learner 8

Definitions 9

Limitations 14

CHAPTER II - A REVIEW OF THE LITERATURE. 15

Sources Consulted 15

Vocationally Oriented Programs. 16

Related Programs 17

Programs Including Slow Learners. 19

Program Inadequacies 20

Newer Program Approaches 20

The Matter of Urgency 21

CHAPTER III - PROCEDURES 23

STEP A - Six Activities 24

STEP B - Instruments Constructed to Obtain Needed Information 26

STEP C - Conference of Consultants 31

CHAPTER IV - CAN THE SLOW LEARNER PROFIT FROM VOCATIONAL EDUCATION? . . 33

The Slow Learner's Ability 33

Severely Disadvantaged Receive Occupational Instruction 34

Careers for which the Slow Learner can be Prepared 36

Improving Resources for Working with the Slow Learner 39

CHAPTER V - VOCATIONAL EDUCATION FOR THE SLOW LEARNER IN AN AREA VOCATIONAL-TECHNICAL SCHOOL 43

Are the Slow Learners' Needs Compatible with the Organization and Purposes of the AVTS? 43

Should the Franklin County Area Vocational-Technical School Serve the Slow Learner? 45

Can the Franklin County AVTS Provide Vocational Education for the Slow Learner? 46

Conclusions 56

CHAPTER VI - MODIFYING THE FRANKLIN COUNTY AVTS PROGRAM TO SERVE THE SLOW LEARNER 59

Eliminate the Quota System 59

Educate the Community, Faculty and Administration . . . 61

Broaden Vocational-Technical School Offerings 68

Provide for School-to-Job Transition 70

Begin Implementation of This Program At Once 71

Funding a Pilot Vocational Education Program for the Slow Learner 73

BIBLIOGRAPHY 77

APPENDICES

A. Application for Federal Grant to Plan a Model Vocational Education Program for the Slow Learner A-1

B. Pupils Admitted to and Graduated from Pennsylvania Vocational-Technical Schools in 1966 with I.Q.'s Below 90 -- Admission Standards and Procedures B-1

C. Summary of the Meeting Held on July 13, 1966; Consultant: Dr. Rudolph P. Matyas C-1

D. Summary of the Meeting Held on July 27, 1966; Consultant: Miss Barbara H. Kemp D-1

E. Reports of Visits to Schools Reputed to be Serving Disadvantaged Pupils E-1

F. The Franklin County Area Vocational-Technical School. . . . F-1

G. A Review of the Occupational Survey Conducted for the Franklin County Area Vocational-Technical School G-1

H. Summary of the Meeting of Guidance Counselors H-1

I. Summary of the Meeting of Employment Counselors I-1

J. Summary of the Responses of Eight Educators Using the DOT "Level of Complexity" Scale to Identify the Slow Learner's Job Performance Level. J-1

K. Exhibit I: Questionnaire and Rating Scale K-1
Exhibit II: Tentative Course Descriptions K-3
Exhibit III: List of Occupational Titles K-11
Exhibit IV: Supplemental List of Occupations K-13
Exhibit V: Summary of Responses K-15

L. Criteria Rating Scale L-1

M. Report on the Conference of Consultants M-1

N. References to Information on Techniques and Materials for use with the Slow Learner N-1

PREFACE

The problem of how to educate the slow learner vocationally has recently been given new impetus. With the passage of the Vocational Education Act of 1963, the Federal Government began sponsoring local research projects in an attempt to find solutions to this problem. No one answer exists and each research project will reach its own conclusions; but certain general observations concerning this problem can be made.

The slow learner can learn if he is taught in the right way and given enough time to learn. . He must not be ignored or pushed aside, but must be treated with imagination, understanding and sympathy.

The problem of the slow learner demands a new look, on the part of the educators, at the existing educational standards and "philosophies" in the public schools. Educators must realize that every student cannot be taught in the same way because each student has different interests, ambitions and needs. For this reason, teaching techniques should ideally undergo constant scrutiny and change.

The slow learner needs close and continuous guidance because he is usually uncertain of his potential and his future. Professional guidance can help him achieve direction and confidence. Guidance, in essence, is a major part of any successful vocational education program.

The general observations of this study are the result of over six months of consultation and study by the research staff. Throughout these six months, the director and the research assistants have adhered to the following principles set down in the "Project Proposal and Grant" (APPENDIX A): (1) to identify areas of vocational opportunity best suited to the abilities and interests of the slow learner; (2) to adopt criteria for optimum educational instruction for the slow learner; (3) to design a model program of vocational education for the slow learner consistent with the results of this study; and (4) to determine the staff and facilities needed to operate a demonstration program for one year.

The Franklin County School Board and the Professional Advisory Committee of the Franklin County Area Vocational-Technical School have reacted favorably to the need for providing greater educational and vocational opportunity for the slow learner who has been so long neglected and overlooked. The results of this study show that there is a place for the slow learner in the vocational program and that he can be educated to become a successful, contributing citizen.

ACKNOWLEDGEMENTS

The director of this project wishes to acknowledge the following state and federal organizations for their assistance and cooperation in this project: the Bureau of Special Services for Pupils and the Bureau of Technical and Continuing Education, Pennsylvania Department of Public Instruction; the Department of Education and Psychology of Shippensburg State College; the Pennsylvania State Employment Service; and the U. S. Office of Education.

Special gratitude is extended to the superintendents and principals of the following schools for permitting members of the research team to visit and review their programs and plant facilities: the Upper Bucks County Vocational-Technical School, Perkasie, Pennsylvania; the Lower Bucks County Vocational-Technical School, Bristol, Pennsylvania; the Cambria County Occupational Preparation School, Portage, Pennsylvania; the Board of Cooperative Education School District No. 1, Yorktown Heights, New York; the York County Area Vocational-Technical School, York, Pennsylvania; and the Carrollton School, Baltimore, Maryland.

Recognition is also given to the following committees and agencies for their firm support of this project: the Franklin County Community Action Committee, the Professional Advisory Committee of the Franklin County Area Vocational-Technical School, the Chambersburg Chamber of Commerce, the Franklin County Resource Development Committee, the parochial schools of the area, and the Shippensburg Regional Instructional Materials Center.

CHAPTER I

INTRODUCTION

"The goals (of education) are to enable each child to play a constructive, respected role in society and to lead a life which to him will be satisfying."

- Educational Policies Commission, 1963

The Problem

Although educational statesmen and philosophers proclaim that all children must be educated to the full extent of their capabilities, and although many respected educators and statesmen work diligently to advance education toward this goal, we seem to be losing ground.

Economic and technological growth are advancing at such a pace that education - especially career education - has great difficulty anticipating the needed adjustments. Tradition, taboo, and inertia combine to make the task of the educational leaders most difficult.

Undoubtedly the growing restlessness among the disadvantaged of our society is due in part to the failure of schools to provide this segment of our population with the skills and confidence necessary for effective living in a rapidly changing society.

Today's high school and vocational-technical schools are not preparing all children for careers. In fact, there are many high school pupils - about one-fifth - that are beginning to wonder if the world of work will have any place for them at all; that is a respectable place with a future. These are the slow learners. They make up a large percentage of the public school dropouts and they are found in large numbers among the culturally disadvantaged. They meet with constant discouragement in school. They are not well equipped for academic learnings and in many schools they are not included in the vocational education program.

Consequently, this study concerns itself with developing a model vocational education program for this forgotten group of children. The main question which must be answered is:

Is it desirable and feasible to operate a model program of vocational education, especially tailored to serve the needs of the slow learner, in conjunction with the program of the Franklin County Area Vocational-Technical School?

Specific questions to be answered by this study include:

1. What is the slow learner's potential to profit from vocational education?
2. What are the criteria of a model vocational education program for the slow learner?
3. Are the educational needs of the slow learner compatible with the purpose and organization of the area vocational-technical school?
4. What must be done to establish a model program in Franklin County?

Background of Neglect:
The Slow Learner in American Schools

For too long a time now, the slow learner in American schools has been denied a practical, work-oriented education because the schools have been traditionally academically oriented. The earliest Latin grammar schools specialized in Latin and Greek as a basis for college entrance and as a preparation for law, medicine, and the ministry. The academies that superseded the Latin grammar schools added English grammar, mathematics, and many less traditional subjects to the curriculum, but their orientation remained basically academic.

When high schools first appeared, their programs were similarly geared toward college entrance. Over the years the curricular offerings of the high school have been expanded, but the high school's function of preparing students for college has remained paramount. Even today, in the 1960's, high schools emphasize academic abstractions over practical experiences. In a recent article, George Meany, president of the AFL-CIO, recognized this academic emphasis when he stated the following:

> "One of the most serious educational inequalities of all is one which can exist in the confines of a single school. It is the inequality which results from a growing preoccupation in schools with the college-bound student and consequent inattention to the needs of the student who does not plan on following high school with college . . .
>
> We must not become so exalted that we forget that two-thirds of our young people do not go on to college. Under the best circumstances, there will continue to be millions of young people who won't go to college, who don't want to go to college, and who should not have to go to college to establish a place for themselves in society . . ." (49)

George Meany's words call for reflection, for if schools are supposed to serve the needs of all youth, how can they claim they are fulfilling this goal when most of their time and programs are oriented toward college-bound students? In schools with an academic philosophy, how are the needs of the slow learner being met? Is he to be "sacrificed" educationally because he doesn't have scholastic ability? Is he much less a person because of this?

The neglect of high schools to teach students marketable skills for the real world of work was emphasized by State Senator Rees of California in his preliminary statements in support of California Senate Bill 1379, which called for the establishment of countywide vocational high schools to prepare students for an expanding technological society. The acuteness of the situation provoked him to conclude:

> "The best way for a teenager to secure a marketable skill would be, at present, to secure a hammer and go to the nearest automobile and start knocking off some hub caps. He will then be apprehended and sent to a correctional institution, where he will then be taught a salable skill with the benefit of the latest equipment and best staff." (66)

Paul Goodman, in an article entitled "Why Go To School?," stated that until we build schools for all kinds of youngsters, it is unfair and dishonest to ask them all to stay in school. Those who do remain, he infers, are in an academic curriculum which is "time-wasted, unrealistic, dispiriting, and destructive of initiative." (34)

Mid-Twentieth Century Resistance to the Teaching of Employable Skills

It must be recognized that there are people who do not agree with George Meany and others that an important function of the school is to teach occupational skills. Mortimer Adler and Robert Hutchins are cases in point.(3)(37) They frown upon, as do other academicians, the inclusion of utilitarian experiences in the curriculum of the school. To them, the teaching of practical, salable skills is a waste of time for the school, and they even hesitate to call this type of training "education." However, if educators were to subscribe to the educational beliefs of Adler and Hutchins, they would promote a "one-track" curriculum, heavily classical in orientation and far-removed from the real world. It is this type of curriculum, as dropout studies have indicated so many times, that markedly increases the dropout rate because these potential dropouts view their curricular experiences as valueless and unrelated to their subsequent employment needs. Having been treated this way, it is no wonder that the slow learner, who accounts for a major portion of the dropout group, becomes resentful and hostile toward the school and anyone who represents it.

But even some individuals in high governmental positions are opposed to schools teaching employment skills. An example of this is found in a review written by Garth L. Magnum, Executive Director of the President's Committee on Manpower, for the Phi Delta Kappan. Mr. Magnum was criticizing some of the ideas expressed by Grant Venn in his book entitled Man, Education, and Work. Magnum's strong opposition to Dr. Venn's belief that schools should teach marketable skills is reflected in the following quotation:

> "Dr. Venn is a proponent of the presently popular view that American education must become more occupationally oriented, that those who will not proceed beyond high school must be provided a salable occupation prior to graduation, and that the needed skills are best supplied within the educational system.
>
> This view, which has been reflected in recent legislation, requires careful and skeptical examination. A valid concern for unemployment can easily lead to the conclusion that employability is the goal of education. It is not . . . In this increasingly complex world, the high school has more than it can do to supply the youth with the basic knowledge he needs to be a human being and a citizen without supplying him with an occupational skill." (47)

The Vocational Education Act of 1963: A New Beginning for the Slow Learner

The problem that has long confronted educators in this country is that of designing appropriate educational programs to fit a diversity of pupil abilities, needs, and interests—not for just the college-bound pupils. The principle of equality of opportunity commensurate with ability in American education has been taken to mean not only that all children have the right to a public education but also that individual differences in learning must be taken into account. Between 1950 and 1960, public school enrollment increased by nearly half, which inevitably implies increased diversity in student-body characteristics. To attend to the needs of one of these groups and not the others is not the American way. And yet, this is exactly what happens in many of our present day high schools when they emphasize programs for the college-bound over those for pupils who intend to enter immediate employment upon leaving high school. But the true American way, however, is for schools to establish, as one of their major goals, suitable programs for all student diversities.

One attempt to answer the problem of student diversity has come with the passage of the Vocational Education Act of 1963. Signed into law by President Johnson on December 18, 1963, the Vocational Education Act, otherwise known as the Perkins-Morse Bill (P.L. 88-210), was the Federal Government's first attempt to expand vocational education in America since the passage of the Smith-Hughes Act in 1917. The Act provides vocational education for all citizens who desire it, and it widens educational opportunities that are based on the nation's realistic job opportunities and actual manpower needs. As evidence of its expansiveness, this new legislation authorizes the establishment of vocational education programs for persons in high school, for youth who are not in school but available for full-time study, for persons who are unemployed, and for persons who are not succeeding in regular vocational programs because of academic or other socio-economic handicaps. (65)

The essence of Public Law 88-210 is that it is a response to a changing world of work. The Act recognizes the fact that educational opportunities and economic conditions have interlocking effects. It opens the door to equality of educational opportunity for people without regard for their age or their academic background, but with an overriding regard for the welfare of the slow learner as well as the technically inclined. The Law is designed in part to encourage the youth of our nation to remain in school and pursue programs that will increase their "employability." The designers of this Law recognized also that too many school dropouts — of which slow learners are a significant part — are denied occupational opportunities because they lack marketable skills. In 1961, for instance, one out of four dropouts was unemployed because he had no salable skill, thus making him part of the population which had the highest unemployment rate for any sub-group in the labor force. As of October, 1965, the unemployment rate for youth from sixteen to twenty years was 13.1% as compared to an overall unemployment rate of 4.3%. In addition, the Department of Labor has estimated that during the 1970's, the problem of youthful unemployment will be aggravated by the entry of 26,000,000 new workers into the labor market, or an increase of 40% over the entries during the 1960's. Furthermore, the percentage of unemployment among workers without marketable skills has continued to be twice as high as among all other job categories, and the percentage among persons with less than a high school education is nearly double that among high school graduates. With these employment statistics in mind, school personnel might do well to ask themselves this question: Are the present practices and programs in school preparing students with less than college ability for work or unemployment? For the good of the student, and society in general, it is hoped that the former goal is their aim.

Implementing the Act in Pennsylvania: The Commonwealth Sets Its Goals.

With support from the Vocational Education Act of 1963, school districts across the nation have already begun to establish vocational-technical schools. In our own State of Pennsylvania, the State Board for Vocational Education has already adopted thirteen goals to be used as part of the planning for the development of vocational-technical education in the Commonwealth. Three of these goals have particular meaning for the slow learner, for this project, and for the Franklin County Area Vocational-Technical School. Specifically, they state that:

(1) "Occupational education programs should be broadened and extended with special consideration to employment needs and skills and to present and future labor market needs."

(2) "Programs and services should be provided to correct educational deficiencies or handicaps which prevent persons from benefiting from instruction essential to employment."

(3) "Programs should be planned to include persons of many age groups, of varying educational status, of divergent abilities and needs, and at all locations in the State." (60)

With these noble goals in view, it is crucial in these beginning stages that the vocational-technical schools do not follow the road of their predecessors by concentrating solely on academically talented students. It is hoped that these schools will provide for the teaching of occupational skills which will enable all students to fit into the world of work. To work is dignified, and all students — ragardless of their academic ability — are entitled to that dignity.

Implementing the Act Locally: A Model Vocational Program for the Slow Learner

With the belief that there is a place for the slow learner in tomorrow's technological society, a project entitled, A Model Vocational Education Program for the Slow Learner, is now underway in Franklin County. Its purpose is to determine the feasibility and desirability of operating a model program of vocational education for the slow learner in conjunction with the Franklin County Area Vocational-Technical School. Perhaps its essence is best reflected in the words of DeHaan and Kough:

> ". . . these youngsters (slow learners) have the capacity to develop into useful and productive citizens if they are identified and helped to acquire the knowledge and skills necessary for effective living. Every possible aid should be given them, so that whatever ability they have is not wasted." (20)

By means of this project, Franklin County, Pennsylvania, is attempting to give meaning to the words of DeHaan and Kough by recognizing that the slow learner, like all learners, deserves something better than the scourge of unemployment.

Definitions

Area Vocational-Technical School (AVTS)

"A school established to provide vocational [and technical] educational opportunities for pupils in all attendance units of a school district or for pupils from several districts within a geographic or legally defined unit."*

Educable Mentally Retarded

"Mentally retarded individuals who are able to acquire functional literacy and social competence through special education."*

"About 2% of the school population have definite mental limitations so extreme that their failure to succeed in school with average children is conspicuous. These children require a special program of mental, social, and emotional education if they are to become self-supporting. . . . The intelligence quotient range from 50 to 75 is the approximate range most widely accepted." (39)

Employment Counselor

"An employee of a personnel department who interviews and advises persons applying for work or who acts as a consultant to persons employed in the plant or corporation."*

Note that the employment counselors used in this study were professionally trained employees of the Pennsylvania State Employment Service.

General Advisory Committee

The title of a committee established by the Franklin County Area Vocational-Technical School to advise the Professional Advisory Committee and the Vocational-Technical School Board "on such matters as the need for a particular shop, laboratory, occupation, equipment, curriculum, labor management coordination, business and industrial requirements, or selection of personnel."# This committee is composed of "representatives of local trades, industries, business research and educational agencies, occupations, and administrators of participating school districts."#

---

* Dictionary of Education, Second Edn., ed. Carter V. Good (McGraw-Hill Book Co., Inc., 1959)

Guidance Counselor

"One who assists individual students [in schools] to make adjustments and choices, especially in regard to vocational, educational, and personal matters; . . ."*

Home School

A secondary school sending students to an area vocational-technical school.

"Level of Complexity" Scale

A progressive arrangement, or "hierarchy," of the functions required of workers in relation to Data, People and Things. "Functions are arranged from the simple to the complex. . . so that, generally, each successive function can include the simpler ones and exclude the more complex functions. It is possible to express a job's relationship to Data, People and Things by identifying the highest appropriate function in each hierarchy to which the job requires the worker to have a significant relationship." (24) I, xviii.

Professional Advisory Committee

The title of a committee established by the Franklin County Area Vocational-

---

Articles of Agreement for Establishment and Operation of the Franklin County Area Vocational-Technical School.

* Carter V. Good.

Technical School to advise the Area Vocational-Technical School Board on educational and administrative matters. This committee is composed of the chief administrative officer of each participating school system and the technical school principal who is also known as the technical school director.#

Quota System

A procedure limiting the number of pupils that a participating district is entitled to send to an area vocational-technical school.

Slow Learner

The pupil who is slower to grasp understandings and easily confused by abstractions. Although he is sometimes referred to as a low normal or a low average learner who is definitely educable, he cannot be described as a normal or average learner. While frequently deficient in academic achievement, he may exhibit average competence in musical performance, mechanical operations, social adjustment, or artistic endeavors. His intelligence quotient is usually somewhere between 75 and 89. He has a history of grade failure and is frequently achieving below normal for his age grade.

The foregoing definition was accepted for the use in this study. However, there is considerable variance in the use of the designation "slow learner" throughout the literature. Some of the more generally accepted usages follow:

> "Generally slow-learning children are somewhat below average in school achievement and general mental ability. They are higher than the mentally retarded. . . They include from 20 to 25 per cent of the school population. . . In terms of intelligence tests they range in I.Q.'s from 70 to 75 up to 90, but mental limits should not be too definite. Many of them have limitations in factors such as physical condition, personality, and in other

---

# Articles of Agreement.

areas. In spite of these minor deviations they pass for normal children, since such differences are comparatively small."

- Harry J. Baker, 1944
"Introduction to Exceptional Children"
p. 244.

"The term 'slow-learning' is used in this text as a designation for the 18 to 20 per cent of school children who measure approximately 50 to 89 I.Q. on individual intelligence tests.

"Within this classification the terms 'borderline' or 'dull normal' are generally applied by the psychologist to those who measure approximately 75 to 89 I.Q. This is the larger group, comprising 16 to 18 per cent of the school population. The terms 'mentally retarded' or 'mentally handicapped' are applied to those who measure approximately 50 to 75 I.Q."

- Christine P. Ingram, 1953 (39) p. 4.

"The slow-learning child is a child whose mental ability is high enough to justify keeping him in the regular classroom but low enough to give him considerable difficulty in keeping up with the average speed of the class."

- DeHaan and Kough, 1956 (19) p. 152.

"(1) a child who comes within the group between the average and the mentally deficient levels of intelligence and who is sufficiently inferior to the average group to warrant special educational provisions; (2) in terms of intelligence quotient (I.Q.), a pupil who falls within the range from 75 to 89; (3) a term used by some, though infrequently, to designate all mentally handicapped children."

- Carter V. Good, 1959

"The fundamental characteristic of the slow learners is a retarded intellectual development as reflected in an I.Q. between 75 and 90. Their developmental rate is from three-fourths to nine-tenths that of the normal learner. Since their development stops at about the same time it does for all children, their final intellectual level is somewhat below the average for the general population. They have ample intelligence as adults to manage their own affairs and earn a living, but are restricted in the types of vocational and social activities in which they can participate effectively."

- G. Orville Johnson, 1963 (41) p. 55.

> "The intelligence range is approximately 75 to 90 I.Q., but keep in mind the limitations of tests and testing personnel . . . These may be the children in a regular classroom who do not quite keep up in the early grades (and lag behind even more later on), . . . children who achieve below their inferred ability because of individual rates of maturation, environmental variables, limitations in testing, or possible multiple factors."
>
> - Willard Abraham, 1964 (2) P. 4-5.

Vocational Curriculum

"A systematic . . . sequence of subjects [including a general overall plan of content and specific materials of instruction] designed to train an individual for effective service in a specific vocation." *

Vocational Guidance

"That phase of guidance, both group and individual, which provides information about and experiences in occupations, job selection, placement, and follow-up." *

Work-Experience (Work-Study)

"Actual experience in an occupation before a person begins a full-time job; may occur (a) in connection with a course of study, where the student spends part of his time on an actual job in a regular business or industry (b) in connection with an educational institution where production of articles in quantity takes place; or (c) in connection with a part-time job carried on before and after school hours, outside the educational institution attended . . .* but under the supervision of the school.

Work Placement

An act of the school in "securing part-time, full-time, temporary or permanent jobs for young persons usually up to 19 years of age . . . [in] an attempt . . . to help individuals make adjustments and work out their vocational plans." *

---

* Carter V. Good (Bracketed material from definition of "curriculum.")

Limitations

1. In pursuing this study, no suitable prototype was found upon which to pattern an exemplary vocational education program for the slow learner.
2. The application of these findings are related specifically to the Franklin County Area Vocational-Technical School.
3. Only a small number of educators and counselors were used in identifying jobs appropriate for the slow learner.
4. The project was interrupted due to the resignation of the first-appointed director.

---

* Carter V. Good

CHAPTER II

A REVIEW OF THE LITERATURE

At the onset of this study, a search was made to discover:

1. Whether or not the stated problem had been investigated before.
2. Ways to provide quality vocational instruction for the slow learner.
3. Criteria by which to guide the development of a model vocational education program for the slow learner.

Sources consulted include:

American Vocational Journal, XLI, Nos. 1-9, and XLII, No. 1.

Card Catalog, Pennsylvania State Library, Harrisburg, Pa.

Card Catalog, State College, Shippensburg, Pa.

Card Catalog, The Pennsylvania State University, University Park, Pa.

Dissertation Abstracts, 1958-1966.

Dissertation Abstracts; Abstracts of Dissertations and Monographs in Microfilm, 1952-1957.

Education Index, ed. Minnie A. Seng, New York, 1959-1966.

Encyclopedia of Educational Research, ed. Chester Harris, Third Edition, New York, 1960.

Index to American Doctoral Dissertations, University Microfilms, Inc., Ann Arbor, Michigan.

Masters Thesis in Education, ed. H. M. Silvey, Cedar Falls, Iowa, 1951-1966.

Mental Retardation, III and IV, 1965-1966.

Research in Industrial Education, 1956-1959.

Research Studies in Education, ed. Stanley B. Brown and Mary Louise Lyda, 1941-1951.

Research Studies in Education, ed. Stanley B. Brown, Carter V. Good and Mary Louise Lyda, Homewood, Ill., 1954-1963.

Review of Educational Research, Washington, D.C., 1931-1966.

Vocational Guidance Quarterly, Vol. I-XIV, Washington, D.C., 1953-1966.

In addition, letters were written to the departments of education of neighboring states, and visits were made to schools reported to be experimenting with vocational education programs for disadvantaged children. Additional leads were obtained from bibliographies and from visits.

No studies were located in the literature that attempted to develop a program of vocational education especially tailored to the needs of the slow learner in an area vocational-technical school.

Vocationally Oriented Programs

David Helager is conducting an experimental program at Aurora, Illinois, where the academically handicapped are receiving a "vocationally oriented" curriculum in a self-contained program. Contrary to opinions expressed in the literature, however, this program places "emphasis on remedial work" in the academic areas. (36) Rochester, New York, has developed a terminal school-work program for the slow learners in grades, seven, eight and nine. (8) Another school, Northwestern High, in Maple, Wisconsin, operates a segregated elementary school program for the "lower 30 to 35 percent" of boys. When these boys reach the high school, they are enrolled one-half day in a self-contained classroom for "their ability level in the academic areas" and one-half day in a "prevocational survey type of class" which includes units of study in carpentry, electricity, plumbing, power mechanics, welding and concrete. (52)

Although none of these programs are designed to provide vocational education for the slow learner in an area vocational school, they do have one thing in common; namely, a recognition of a need for occupational preparation for the slow learning child. Each school has attempted in its own way to provide some vocational instruction. In the first case (Aurora), jobs were identified within the school system and pupils were assigned to teachers who would supervise pupils on the job. Rochester is using the work experience program coupled with release at an early age from formal education. At Northwestern High, the approach appears to be one of providing the slow learner with a cluster of vocational education experiences in a single vocational course.

Regardless of the approach used, the value of vocational education is recognized. "A good program for the slow learner should contain some aspect of vocational education." (25) As recent as last year, Dr. John Arthur Smith, in a study conducted at the University of Kansas, obtained opinions and statements from all comprehensive high schools in Kansas offering vocational education, and from principals in similar schools in California, Georgia, North Carolina, South Carolina and Vermont. Dr. Smith concludes that vocational education is important for the slow learner but that the slow learner generally does not have the opportunity to benefit from participation in area vocational-technical school programs. (73)

Related Programs

One study was found where an attempt was made to improve the general education program for the slow learners in grades four through twelve. In this study, Dr. Sheeley concludes that "slow learners can be taught successfully, provided trained teachers with proper attitudes are obtained and a program is planned with a maximum of concrete, meaningful experiences." (72)

In several instances the slow learner has benefited from programs planned (1) to reduce dropout rates, (2) to provide advantages for the disadvantaged, or, as in the case of Dr. Sheeley's study, (3) to improve general or comprehensive education programs. Recent examples of situations where general education programs have been improved and where some aspect of vocational education has been a part of a special program include:

Chicago Programs for Potential Dropouts, 1964

This program requires "teachable groups" and provides varied curricular offerings. It includes an opportunity to attend a vocational high school program that "stresses immediate employability in a specific area of business or industry." It also includes cooperative work study programs to "encourage young people to remain in school while they receive training in a salable skill."(87)

Chicago Compensatory Education Program, 1964

Although designed for a different purpose, this program uses many of the same approaches as the previous program. Special instructional materials have been prepared to improve instruction for the disadvantaged. (88)

Orange County (California) Summer Guidance School For Dropout Recovery, 1965

A summer program which placed emphasis on vocational guidance activities. The curriculum was unique. It recognized that "the present day curriculum . . . and the methods of teaching had failed to meet the particular needs of the early school leaver." Therefore, a curriculum was adopted which was based upon a philosophy promoted by Dr. Albert Upton of Wittier College. (56)

Orange County (Florida) Multi-Occupational Youth Project, 1965

This program is also a program for school dropouts. However, it relies more heavily upon vocational education than any of the preceding three. Eight occupational areas provide the basis for the eight courses offered to the pupils. (55)

Alexander County (Illinois) Experimental and Demonstration Project, 1965

Ralph O. Gallington, a professor in the School of Technology at Southern Illinois University, is conducting two controlled experiments: (1) the influence of a work-experience program and (2) the effect of vocational counselors and individual guidance on potential dropouts. (30)

Ithaca (New York) Dropout Program, 1965

Probable dropouts were enrolled in vocational education courses - Printing, Electronics, Auto Mechanics, Drafting, Food Service, Cosmetology, and Landscaping - during one block of time. During another, they were given academic subjects. All subjects were provided with an intensive counseling program. Some potential dropouts were included in a school-to-employment program which included a work-experience phase. (80)

Programs Including Slow Learners

Some educators, recognizing that the slow learner's vocational preparation has been neglected, have included a few slow learners in programs developed for the educable mentally retarded. At Rochester, New York, slow learners made up about one-half of the enrollment of the Paul Revere Trade School until September, 1956. In 1956, the educable mentally retarded boys, who made up the other half of the trade school enrollment, were "scheduled apart" from the slow learners in keeping with a recommendation from the New York State Department of Education. Thus, in June, 1958, the Paul Revere Trade School was closed. Since then the slow learner in Rochester has been receiving a "school-work program." (75)

A recent revision of the definition of retardation used by the American Association of Mental Deficiency has prompted Fairfax County, Virginia, to initiate a vocationally oriented program for "mentally retarded" pupils whose abilities range up to 84 I.Q. This program is a special education program conducted at a regular high school. Academic subjects have been altered to meet the needs of the slow learner. (11)

Some researchers have become interested in improving facets of the education program in order to make it possible for the slow learner to profit from instruction. One example of this approach is a study conducted by Dr. Jeroslaw for Columbia University. Dr. Jeroslaw developed a model resource unit in world history for slow learning students in Huntington High School. In connection with his study Dr. Jeroslaw observes that,

> "At present very little is being done at the high school to provide a social studies program which would meet the educational needs of the slow learner. This appears to be a reflection of a nationwide trend . . . This is so despite the fact that at the high school the rate of failure and lack of interest in social studies among these students is relatively high." (40)

Program Inadequacies

Dr. Williams examined training and employment opportunities of "non college-bound high school graduates in the South. Unquestionably, this group contained a sizable portion of slow learners. He found that (in the South) a common agreement between employment opportunities and training existed approximately 44% of the time." (86)

Numerous references are made in writings to the strong "academic" emphasis in the public schools. However, the most significant reference to this weakness comes from Dr. J. A. Smith who surveyed school principals in seven states. (73) Dr. Smith concludes that,

> "Secondary schools are strongly 'college-prep' by nature, failing to take into account a large segment of the student group who will never graduate, much less continue into higher education programs."

Regarding the manner in which vocational education courses meet the needs of their students, Dr. Smith reports,

> "Vocational education courses are generally below average in the high school in terms of meeting the needs of their students." (73)

Dr. Cleveland Dennard, after reviewing the practices of selected vocational-technical schools, observed that "modern teaching technology was almost non-existent in vocational-technical schools." (22) In addition, writers recognize the failure on the part of counselors and teachers to accept the slow learner. (29, 32) There was also evidence in the literature that agreement is lacking between professional groups regarding the "purposes" and "current nature" of vocational education. (7)

Newer Program Approaches

Some of the newer programs for the educable mentally retarded have features that may prove worthwhile in programs for the slow learner. In 1964, Mantee

County (Florida) introduced a "comprehensive and coordinated program . . . [to bridge] the gap between special education and remunerative employment." To accomplish this transition, a project director and a vocational rehabilitation counselor were employed. (84)

Pennsylvania is presently endeavoring to formulate a pilot program of vocational guidance and individual counseling for "slow learners."* Adams County (Pa.), one of the four counties participating in the project, has outlined a three-phase program: Phase I - Group counseling in the classroom, Phase II - Work training and individual counseling, and Phase III - Extension of counseling into occupational placement including employer-school cooperation. (83)

Cambria County (Pa.) incorporated "occupational diagnosis" and "practical application" of academic skills into an occupationally oriented program for the mentally retarded. (64) The area vocational school, serving West Chester County, New York, has introduced two vocational courses primarily for the slow learner and two courses to serve the educable mentally retarded. (See APPENDIX E - 3) And, in Illinois, the State Board of Vocational Education has been encouraging experimentation to explore Cooperative Supervised Job Training, a work-study approach to the education of "students in the regular program who are classified as low academic achievers." (16)

The Matter of Urgency

In recent writings there appears to be an increased concern and urgency about solving the problem of providing vocational education for the slow learner. (73) This new attitude is probably due to the combination of three factors.

---

* Educable mentally retarded as defined in this study.

1. Automation is decreasing the availability of unskilled jobs that were normally open to this segment of youth.
2. The Vocational Act of 1963 has provided a new impetus to expand area vocational education.
3. "Below average, terminal students do not generally benefit from the area school program." (73)

CHAPTER III

PROCEDURES

In order to develop a vocational education program for the slow learner that can be used as a model for other schools as well as one that can be operated in conjunction with the Franklin County Area Vocational-Technical School, it was necessary that answers be found to various questions including the four major ones set forth in Chapter I. Specifically,

A. Can the slow learner profit from vocational education?

   (1) Does he have the ability to achieve in the program?

   (2) Are there careers for which he can be educated?

   (3) Do educators have the kinds of skills needed to instruct this group of children?

B. What criteria can be used to guide the structuring of a model vocational education program for the slow learner?

   Are the members of the Professional Advisory Committee of the Franklin County Area Vocational-Technical School in accord with these criteria?

C. Are the needs of the slow learner compatible with the organization and purpose of the Area Vocational-Technical School?

   (1) To what extent are Pennsylvania Area Vocational-Technical Schools accepting slow learners?

   (2) Is the Area Vocational-Technical School an appropriate place for the vocational education of the slow learner?

   (3) To what extent should the Franklin County Area Vocational-Technical School accommodate the slow learners?

   (4) To what extent can the Franklin County Area Vocational-Technical School accommodate the slow learners?

D. What must be done to establish a model vocational education program for the slow learner in Franklin County?

In addition to using material found in the literature as sources for answers to these questions, three general steps were taken -

Step A: Information was obtained from consultants and from interviews held at selected schools.

Step B: Instruments such as questionnaires and rating scales were used to obtain opinions of educators and other needed data.

Step C: A panel of educators was asked to review the findings and to help in formulating a model vocational education program for the slow learner.

STEP A - Six Activities

(1) Letters were sent to superintendents of schools in nearby states and cities requesting information about programs that might suggest ways to provide vocational education for the slow learner.

(2) A status survey was made of area vocational-technical schools in Pennsylvania.

(3) Suggestions were obtained from visiting consultants.

(4) Selected schools were visited. (See APPENDIX E)

(5) A meeting was held with the guidance counselors representing the participating schools of the Franklin County Area Vocational-Technical School.

(6) A conference was arranged with the employment counselors serving the local employment area.

Letters sent to state superintendents of education in the six states bordering Pennsylvania requested leads on vocational education programs within their respective states that were benefiting the slow learner. By direct correspondence with some schools, and visits to others, information facilitating the progress of the study was obtained.

Pennsylvania area vocational schools were contacted to obtain

a. the number of slow learners who graduated during the spring of 1966.

b. the number of slow learners admitted to area vocational-technical school classes during the first part of the 1966-67 school year.

c. information relative to screening procedures used in connection with area vocational school admission practices. (See APPENDIX B)

Consultants' services were obtained. Programs which provide vocational education for the slow learner are so few and so little has been written on this subject that it was deemed advisable to bring in consultants who have had related experiences. Local educators who would ultimately be participants in the local program were invited to attend these conferences. For this purpose the services of Miss Barbara Kemp and Dr. Rudolph Matyas were obtained. Miss Kemp is Program Specialist for Persons with Special Needs, Division of Vocational and Technical Education, United States Office of Education, and author of the publication, "The Youth We Haven't Served." (See APPENDIX D) Dr. Matyas is presently director of special education for the Bucks County (Pa.) Schools. He was formerly connected with the Cambria County (Pa.) Occupational Preparation School and in 1963 completed a doctoral disseration at Pennsylvania State University on secondary school programs in Pennsylvania for the educable mentally retarded. (See APPENDIX C)

Visits to nearby schools were arranged in order to get first hand information relative to the implications of vocational education for the slow learner. Visits were made to Bucks County, where a school is being opened purporting to have an extensive Occupational Program; to Cambria County where an opportunity school is in operation for the educable mentally retarded; to West Chester County, New York, where two courses are in operation primarily for the slow learner and two courses for the educable mentally retarded; to York County (Pa.) where courses are being planned to include the slow learner; and, to the Carrollton School in Baltimore where an entire vocational school is operated for the educable mentally retarded. (See APPENDIX E)

Local guidance counselors were invited to review the needs of the slow learner and to discuss the potential of the Franklin County Area Vocational-Technical School in helping them meet these needs. The counselors were questioned regarding jobs that they believe the slow learner is capable of performing, as well as guidance problems that they anticipate the slow learner might have in the area vocational school. (See APPENDIX H)

Employment counselors serving the employment area of Adams, Cumberland, Franklin and York Counties were asked to indicate occupations in the local region where slow learners were finding placement. They were also asked to recommend occupations that they believe would be within the ability of the slow learner and in demand on the local labor market. In addition, they reacted to the Franklin County Area Vocational-Technical School Occupational Survey and job information obtained from the 1960 Census Report.

STEP B - Instruments Constructed to Obtain Needed Information

"Level of Complexity" Scale. In order to ascertain whether or not the slow learner could profit from vocational education, it had to be determined to what extent careers existed for which the slow learner could be educated. With this in mind, the Dictionary of Occupational Titles (DOT) was examined for clues. By using this approach, it was discovered that the "level of complexity" scale used in the Third Edition of the DOT is arranged in such a manner that the 4th, 5th, and 6th digits (Example: 209:185)of the code indicate "the level of complexity at which the job requires the individual to function" in his relation to "Data," "People," and "Things." (24)

The 4th, 5th, and 6th digits of the code number system relate to "Data," "People," and "Things," respectively, in conformity with the following hierarchy:

	Data	People	Things
0	Synthesizing	Mentoring	Setting-Up
1	Coordinating	Negotiating	Precision Working
2	Analyzing	Instructing	Operating-Controlling
3	Compiling	Supervising	Driving-Operating
4	computing	Diverting	Manipulating
5	Copying	Persuading	Tending
6	Comparing	Speaking-Signaling	Feeding-Offbearing
7	No significant relationship	Serving	Handling
8		No significant relationship	No significant relationship

Using "Data," "People," and "things" as a basis for selection, four guidance counselors, three employment counselors, and a vocational-technical school director were asked to indicate the job functions that they believed the slow learner could perform. If the maximum functioning level could be determined by this procedure, then the DOT might well serve as a guide for locating suitable occupations for the slow learner.

Criteria Rating Scale. A list of criteria was assembled using clues obtained from the literature, from consultants and from visits. These criteria were arranged in the form of a rating scale and sent to the members of the Professional Advisory Committee of the Franklin County Area Vocational-Technical School in order to obtain their concurrence or rejection. Each committee member was given a letter of explanation and a questionnaire (See APPENDIX L) and asked to react to each criterion by checking "Strongly Agree," "Agree," "Uncertain or No Comment," "Disagree," or "Strongly Disagree." The members were also encouraged to suggest additional criteria and/or to insert written comments relative to any criterion listed.

The criteria developed from this procedure state that a vocational education program for the slow learner should:

Allow for the development of a healthy self-concept through recognition of and participation in useful work.

Provide experiences which allow for the development of respect for all levels of occupational skill.

Provide sufficient work activities so every child can function at his level of ability.

Provide each student with sufficient training to allow for the development of employable skills.

Develop an image of quality education regardless of the work skill level being taught.

Be developed with full consideration for benefits to the child and to society.

Avoid groupings that tend to mark the child as a slow learner.

Be diverse enough to provide for the varied needs of the students enrolled.

Provide for curricular experiences which allow for vertical and horizontal mobility.

Attain standards of achievement commensurate with the realistic requirements of the occupation or vocation selected by the student.

Be well coordinated with the sending school.

Offer educational opportunities for every child in this group regardless of intelligence level, provided the child shows evidence of a willingness to profit from the school's efforts.

Conduct an educational program that is both inspirational and motivational for the students enrolled.

Develop social competencies by co-mingling slow learners with students of all abilities to the greatest extent possible.

Provide experiences which build respect to the value and dignity of work, regardless of whether it is white collar or blue collar work.

Provide an opportunity for exploration in several occupational groups.

Maintain its practicality by keeping abreast of industrial innovations and trends and insuring that these will be reflected in the curriculum whenever and wherever possible.

Provide vocational learning experiences for both boys and girls.

Consider staff competencies and interests in relationship to the general objectives of the overall program.

Provide an educational climate that is conducive to academic and vocational achievement.

Develop an appreciation of good workmanship and good design.

Develop the habit of orderly procedure in the performance of any task.

Develop the habit of self-discipline which requires one to do a thing when it should be done, whether it is a pleasant task or not.

Create a spirit of cooperation among its members in order to insure harmonious working relationships as well as the successful completion of group projects.

Develop desirable attitudes and practices with respect to health and safety.

Provide experiences which allow for the development of skillful manipulation of tools, equipment and materials.

Provide experiences which familarize the student with nomenclature essential to success in his chosen occupation.

Familarize the student with the customary procedures and work methods employed by industry and by workers in the various trades.

Emphasize the importance of accuracy, neatness, and speed in the performance of trade operations.

Provide guidance in obtaining employment and in evaluating factors necessary for holding a job.

The median group response for each of the foregoing criteria was "Agree" or "Strongly Agree."

Questionnaire reviewing tentative courses. In order to obtain information relative to the following purposes, an instrument combining the features of a rating scale and a questionnaire was developed (See APPENDIX K: Exhibit I)

a. To identify areas of vocational education in Franklin County suitable for the slow learner.

b. To identify the courses that offer the greatest potential for serving the slow learner.

c. To obtain clues to courses that should be added to the Franklin County Area Vocational-Technical School in order to better serve the slow learner.

d. To determine the compatibility of the Franklin County Area Vocational-Technical School offerings with the Franklin County Occupational Survey in light of the needs of the slow learner.

e. To assist with the definition of courses.

f. To determine the extent to which common understandings exist between guidance counselors, employment counselors and administrators regarding the definitions of course offerings and the potential these courses offer for the education of the slow learner.

Seventeen of the twenty-two courses presently approved for inclusion in the Franklin County Area Vocational-Technical School were selected for study and an insert was included for each of the seventeen. The courses included were:

Machine Tool Operator
Welding
Textile Fabrication and Design

Auto Body Repair
Auto Mechanics
Building Construction
Cosmetology
Electrical Construction
Farm Machinery Sales and Service
Health Assistant
Landscaping and Horticulture
Machinist
Marketing Technician
Plumbing, Heating, Pipefitting and Sheet Metal
Practical Nursing
Printing

Manufacturing and Materials Control

The first three courses named above are currently designated by the Franklin County Area Vocational-Technical School as "Operational," the next thirteen as "Skilled," and the last one as "Technical."

Obviously one would be more likely to find more opportunities for the slow learner in the "Operational" and "Skilled" courses than in the "Technical." For this reason, only one "Technical" course was included in this study. This one was retained as a control item.

For the sake of brevity, and as a control, a skilled course, entitled "Foods Preparation and Service," was excluded.

Along with this instrument containing inserts for the seventeen courses, the respondents were given a copy of the "Tentative Course Descriptions" (APPENDIX K: Exhibit II) and two listings (APPENDIX K: Exhibits III and IV) of the forty-four most common jobs identified in the Franklin County Area Occupational Survey (APPENDIX G).

The first list (Exhibit III) included 20 of the 100 DOT titles mailed with the questionnaire used for the Franklin County Occupational Survey. This list was entitled "List of Occupational Titles" and was intended to be used with Question #2 of each of the seventeen courses surveyed (See Exhibit I) and with the first of the two general questions.

The second list (Exhibit IV) entitled "Supplementary List of Occupations" contained 24 job titles. These titles were not on the list mailed with the Franklin County Occupational Survey but were supplied by the respondents. This list was supplied for use with Question #3 and with the second of the two general questions.

Altogether, the forty-four occupational titles selected for these two lists represent 94% of the total number of employed persons covered by the Franklin County Survey. The first list represents 66%, and the "supplemental" list, 28%.

This questionnaire and rating scale was administered to eight educators closely involved with the Franklin County Area Vocational-Technical School, three guidance counselors, three employment counselors, the Area Vocational-Technical School director and administrative officer.

The results were tabulated and evaluated.

STEP C - Conference of Consultants

A two-day conference of consultants was held. Included in the conference team, in addition to the project director (a school administrator), were the following educators: a director of an area vocational-technical school that is pioneering in program innovations for the slow learner; a director of a vocational education school especially created to serve the educable mentally retarded; a professor of education from a nearby university; a member of the Pennsylvania Bureau of Vocational, Technical, and Continuing Education; a director of a vocational education program in a comprehensive high school that features a work-study program; and the study consultant to this project (a professor of psychology and guidance).

In preparation for the conference, summaries were prepared of all the material and data obtained in Steps A and B. In addition, a statement was prepared identifying the obstacles which are likely to hinder a program of vocational education for the slow learner in an area vocational-technical school.

After reviewing this material, the conferees were asked to suggest ways to implement the listed criteria and ways to overcome the obstacles encountered in the study. (See APPENDIX M)

CHAPTER IV

CAN THE SLOW LEARNER PROFIT FROM VOCATIONAL EDUCATION?

The Slow Learner's Ability

The one constant characteristic of the slow learner is that he is a slow learner. In other respects the slow learner can be quite different.

The cause of his slow rate of learning may be his native intelligence, his endocrine glands, his socio-economic environment or his lack of motivation. In any event, he is slow to learn the typical classroom material in the typical way classroom material is taught.

Generally speaking, the slow learner is usually retarded in his level of intellectual development and slightly below average in size, build and motor ability. (41) On a verbal intelligence test, he will usually measure somewhere between a 75 and an 89 I. Q. There are many things he can learn very well. However, regardless of the amount of time he is given, there are some skills and concepts he will never be able to acquire. Experience with Differential Aptitude Tests has shown that a few children who score very low in both Verbal Reasoning and Numerical Ability will score superior in both Space Relations and Mechanical Reasoning. (70)

Although he is a slow learner, and there is usually a restraining limit upon the ultimate level of his academic accomplishments, all need not be lost. He does have adequate ability to learn the necessary skills and concepts that will enable him to become a self-sufficient, semi-skilled, or sometimes, a skilled worker.

Many educators recognize his potential. The Educational Policies Commission of 1965 observed that "many children who learn slowly can learn well and in considerable quantity." In a plea for educators to accept the slow learner and develop the kind of a school curriculum the slow learner needs, W. B. Featherstone emphasized:

> " . . . that slow learners can think, reason, abstract, generalize, interpret, and draw conclusions. They do all these things in precisely the same way anybody else does them. But their reasoning and thinking are seldom so deep, so subtle, so comprehensive as the reasoning, thinking and concluding carried on by more fortunately endowed persons. They can reason and they can be taught to reason better, and the way they learn to reason better is by practicing reasoning with problems." (29)

More recently, the Bureau of Adult and Vocational Education of the United States Office of Education reports "the range of ability, intelligence, creativity and potential among the youth and adults who are academically, socioeconomically or otherwise handicapped can be compared favorably with those who are considered able to take advantage and benefit from the regular vocational programs." (76)

Severely Disadvantaged Receive Occupational Instruction

In recent years, numerous projects have been undertaken to provide occupational and vocational education to the culturally disadvantaged, the dropout, and the educable mentally retarded - and not without some measure of success.

Orange County, Florida, recently developed a "Multi-Occupational Youth Project" to provide occupational training for 300 "severly disadvantaged youth." Classes have been opened to prepare the pupils in the ten different occupations which follow:

Salesperson, Auto Parts
Electrical Appliance Repairman
Clerk-Typist
Home Attendant
Auto Service Station Attendant

Air Conditioning and Refrigerator Mechanic
Small Gas Engine Repair
Nursery Man
Lawn Maintenance Man
Landscape Gardener. (55)

The Chicago Public Schools have succeeded in reducing the dropout rate from 8.4% in the 1954-55 school year to 6.9% in the 1962-63 school year. This was accomplished through a total school approach which includes a vocational high school program that "stresses immediate employability in a specific area of business or industry," and a cooperative-work-study program. (87)

The Cambria County (Pa.) Program of Occupational Preparation for educable mentally retarded adolescents offers each student training in the areas of

Building Maintenance
Furniture and Small Appliance Repair
Business Employment Practices
Automotive Maintenance
Printing (type and offset).

The claim is made that, after participating in this general occupational preparation program, "students are more productive academically, . . . [tolerate] longer periods of work, [and] . . . some 'blossom' in ability." (64)

Bitter and Bolanovich report encouraging results with a program designed to habilitate lower level retardates. Of 53 subjects enrolled in the first year class (1964-65), 12 were employed, 31 were still in school, and 10 were unemployed at the end of January, 1966. Of the 12 employed, 9 have held their job six months or longer. This is remarkable when one considers that the I. Q. range of this group of retardates is 40-65. Pupils enrolled in this program receive their vocational training from the Work Experience Center which is operated by several agencies in cooperation with the Special School District of St. Louis County (Mo.). The Special School District is "devoted solely to the education of handicapped children and to vocational training of normal children." (5)

The vocational training for these pupils included "general work adjustment and specific job skills." (5) During the first seventeen months of the project, occupational training and experience have been given in the following job areas:

Kitchen helper
Housekeeping worker
Laundry room worker
Dining room helper
Shipping and dock worker
Clerical helper
Nursery and groundskeeping worker
Manufacturing assembly worker
Drug counterwork helper
Service station helper
Beauty shop helper
Library aide
Nursery home helper. (5)

If the culturally disadvantaged and dropout groups - which contain many slow learners - can profit from vocational education, and if the educable mentally retarded and the lower level retardates can be taught to adjust to the world of work, certainly it can be assumed that the slow learner has the ability to profit from vocational education and that jobs exist for which he can be trained.

Careers for which the Slow Learner can be Prepared

The United States Employment Service, through the administration of the General Aptitude Test Battery, has identified nine basic aptitudes and has related these aptitudes to samples of workers on specific jobs. (31) Many of the aptitude patterns fall within the range of the slow learner's ability. For example, the lowest acceptable I.Q. scores for a few selected occupations follow:

Attendant, occupational therapy	80
Baker	75
Bricklayer	90
Carpenter	85
Cement mason	70
Construction equipment mechanic	85
Cylinder-press men	90
Electrician, airplane	80
Key punch operator	85
Linoleum layer	85
Machine tool operator	
Drill press	65
Lathe	80
Nurse's aid	80
Pipe fitter	85
Plumber's helper	85
Plasterer	85
Salesperson, general	85
Sheet metal worker's helper	80
Welder, spot	75

Nine aptitudes have been used in establishing the normative performance requirements for more than 100 fields of employment and 350 occupations. The nine aptitudes are Intelligence, Spatial, Numerical, Verbal, Manual Dexterity, Motor Coordination, Finger Dexterity, Form Perception, and Clerical Perception. On the basis of their experience with this test battery, employment counselors report that there are numerous occupations and employment fields in which the slow learner can engage successfully. (APPENDIX I)

Using the educators' median group response to the DOT "Level of Complexity" Scale as an indicator,(See Chapter III) it was found that the slow learner could probably perform jobs at the following levels: for "Data," levels 5, 6 and 7; for "People," levels 6, 7 and 8; and for "Things," levels 2, 3, 4, 5, 6, 7 and 8. Expressed in another manner, slow learners could probably perform jobs that do not require complexities above 5 (Copying) for "Data," above 6 (Speaking-Signaling) for "People," and above 2 (Operating-Controlling) for "Things." The range extended from the bottom up to, and including, 3 of "Data" (Compiling), 5 of "People" (Persuading), and 2 of "Things" (Operating-Controlling).

As a follow-up to this procedure, forty four of the occupational titles used in the Summary of the Franklin County Area Vocational-Technical School Occupational Survey (APPENDIX G) - originally identified by DOT Second Edition code numbers - were then converted to the code numbers used in the Third Edition. (These forty-four titles represent 94% of "present employment" in the Franklin County area as determined by the Franklin County Survey.) By examining these DOT code numbers in light of the counselors' responses, it was found that arc welders, waitresses and waiters, combination welders, warehousing, assembly packers, sewing machine operators, automotive equipment operators, and nurse's aids were some of the local jobs that slow learners could probably perform. All of these occupations fall at or below the median group response of the eight educators. This group of occupations represents 1457 workers, or 17% of the "present employees" listed in the Franklin County Occupational Survey.

Employing the same technique, but using the median for two of the digits and remaining within the range established for the third, the following occupations were added: cylinder pressmen, office machine operators, dry cleaning establishment workers, sales clerks, stock clerks, clerk-typists, secretaries and receptionists, bookkeepers, cashiers, tellers and checkers. This group of occupations was found to represent 1062 additional employees in the Franklin County Vocational-Technical Summary, or 12% of the Survey's "presently employed."

It is interesting to note that in two separate conferences (APPENDICES H and I), the occupations that the six counselors identified as being suitable for the slow learner (i.e. carpentry, auto body repair, bricklayers, and seamstresses) were above the range that they established in the "level of complexity" activity. Obviously, the results obtained by using the DOT "level of complexity" scale are conservative. When the counselors thought in terms of jobs held by slow learners and jobs slow learners had been trained to perform, the counselors not only concurred on jobs within the range of their responses, but frequently named occupations above the range established by this activity.

If this procedure were liberalized by using the top of the counselors' range on the "level of complexity" scale for two categories and permitting movement up to one degree above the range in a third category, carpentry, auto body repair, bricklaying, and sewing, as well as cooking, general sales, data processing, molding, plumbing and pipefitting, stone and block laying, tilesetting, mechanical equipment processing, painting, butchering, and baking would be encompassed. By doing this, 1435 workers, or an additional 16% of the employees, are added. This would mean that a total of 45% of the jobs reported in the Franklin County Area Vocational-Technical School Occupational Survey could be, in the opinion of the six counselors, performed by slow learners.

Finally, the Dictionary of Occupational Titles was examined to determine how many career opportunities are available to the slow learner. Using the medians established by the counselors, 1494 separate job designations under 246 different title numbers were counted in the first three sections (1. Professional, Technical, and Managerial Occupations; 2. Clerical and Sales Occupations; and 3. Service Occupations). On the basis of this information, it was estimated that the nine sections would include approximately 500 title numbers which include over 3,000 separate job designations that appear to be within the performance range of the slow learner.

Improving Resources for Working with the Slow Learner.

Early in this study it became obvious that most educators agree that the laws of learning apply to the slow learner the same as they do to other children. However, considerable disagreement exists as to how and where to educate these pupils. Nevertheless, as the study progressed, some of the outstanding ingredients of the classroom process became obvious. The important ingredients to the successful education of the slow learner are: (1) permitting adequate time for comprehension, (2) recognizing the pupil's functioning limits, (3) preventing the pupil from becoming discouraged, (4) making instruction functional and concrete as well as avoiding involved abstractions, (5) increasing his work-tolerance level, (6) providing a curriculum designed for him rather than a "watered-down" academic curriculum, (7) avoiding "remedial" programs designed to "hammer home" academic learnings, and (8) helping the pupil establish strong goals. B. L. Dodds insists that,

> "For the slow learner the goals of learning must be discernible, obvious and reasonably immediate."
>
> " . . . activities should be concrete and center on tangible things."
>
> " . . . much greater dependence should be placed upon demonstrations, observations, field trips, pictures, and other means of direct experience." (25)

In 1954, the United States Department of Health, Education and Welfare studied the status of secondary schools' adaptations to rapid and slow learners. (79) The study revealed that 77% of the schools claimed to be providing easy study materials related to the slow learners' interests; 55% reported they promoted slow learners on the basis of their physical and social development; 53% said they were providing "remedial" sections where performance is "below capacity in basic skills;" 52% indicated that they were providing low ability classes in certain subjects; and 51% listed that they were assigning teachers to slow learning groups on the basis of the teacher's training and experience with slow learners. In summary, this study concluded that,

> "In teaching slow learners, greatest emphasis is placed upon pupil projects which provide repetitive tool-using exercises, which require pupils to follow teacher-made plans, directions, and demonstrations, and which can be completed in short periods of time. In some schools additional time is arranged for pupils in industrial arts shops.
>
> " . . . greater emphasis is placed upon 'doing' experiences involving tools and materials in school shops than upon experiences involving books, community resources and observations, or interviews with industrial or labor leaders." (79)

Throughout the literature, considerable emphasis is placed upon the value of visual and audio-visual instructional materials in working with the slow learner. (1, 12, 17, 33, 48) Claims are being made for certain advantages that programmed materials might offer. (6, 45, 62, 63) Cirone and Emerson (13) report on a Continuous Progress Program where slow learners were permitted to work at their own speed. However, the importance of a good guidance program and the use of work-experience programs receive, by far, the greatest amount of attention.

For some time, the work-experience program has been gaining acceptance as a means of providing vocational education for the educable mentally retarded. Just recently, however, Phi Delta Kappa focused attention upon this practice as one that has potential for programs dealing with alienated youth.

> "The kind of work experience program that will be most useful to alienated youth will have the following characteristics:
>
> 1. It will commence at age thirteen or fourteen, and continue to age eighteen, though many boys will graduate from it a year or two before age eighteen.
> 2. It will attempt to teach boys elementary work disciplines: punctuality, ability to take orders from a boss, ability to work cooperatively with others in a team, responsibility on the job.
> 3. It will lead directly into stable adult jobs.

> 4. It will be a part of the public school program, with the curriculum adapted to the intellectual level, the interest in practical endeavors, and the work-experience program of alienated youth." (8)

In order to be of service to other educators interested in improving vocational education for the slow learner, and in order to properly assess educational techniques and methods that might have a bearing upon a model program, it was decided early in this project to develop a bibliography of techniques and methods that were compiled in the progress of this study.

Materials relating to language arts, mathematics and science, social sciences, and vocational instruction, as well as obtaining and holding a job, have been included as source material for improving the instruction of the slow learner.

Although this bibliography is in no way complete, it is offered as an aid to those who are engaged in developing of or searching for ways to improve instruction for the slow learner. (See APPENDIX N)

Summary

Clearly the slow learner has the ability to profit from a program in vocational education. If the educable mentally retarded pupil can be trained for employment, it is reasonable to assume that much more can be accomplished with the slow learner. There are numerous careers within the scope of his ability and educators are finding newer and more efficient ways of providing for his instructional needs.

CHAPTER V

VOCATIONAL EDUCATION FOR THE SLOW LEARNER IN AN AREA VOCATIONAL-TECHNICAL SCHOOL

Are the Slow Learners' Needs Compatible with the Organization and Purposes of the AVTS?

L. C. McDowell in presenting philosophical support for the "comprehensive area vocational school" expresses that "by bringing more people together, program enrichment may be more efficiently attained." (46) When it is considered that a vocational education program requires an "employment base" and a student body of sufficient size to balance the varied interests and abilities of pupils with the diverse needs of business and industry, it can be readily understood why the area vocational-technical school has evolved. Without sufficient pupils, it becomes difficult to retain the diversified faculty needed to provide the technical skills required.

The area technical school thus becomes the only institution large enough to offer vocational education for the slow learner at this time. Usually about one-fifth of a student body are slow learners. A school serving an area smaller than an area served by the area vocational-technical school would certainly find it most difficult to provide the range of vocational opportunities needed by students who are restricted by ability in the number of careers they can elect. This is true despite the fact that writings indicate that the vocational instructors frequently do not have the background in instructional methods and techniques to successfully teach slow learners.

His colleagues in the home school also lack these skills. And, although claims have been made for the success of work experience programs, there is no indication that these successes can be attributed to the superiority of professionals available to such programs. Rather, it must be assumed that the problem of instructing slow learners is a universal one that can probably be solved by instituting proper teacher training and inservice training programs.

Proposals to provide vocational education for the slow learner by means of local work-study programs or other local innovations appear to be severely restricted from the start by the limitation placed upon the number of vocational education faculty members available to such programs. Although the work-study program has demonstrated its usefulness (1) in reducing dropout rates, (2) in providing occupational experience for the educable mentally retarded, and (3) in holding the culturally disadvantaged in school, it has succeeded only in large school districts where many employment opportunities can be found and in districts where it has been used with a relatively small proportion of the student body. In most cases, the work experiences used in work-study programs are restricted to a single - or at best - to a few fields of work. When this type of program is depended upon to educate large numbers of pupils, the school must be prepared to find many employment opportunities and to increase the variety of careers for which instruction is offered.

Many area vocational schools have been established upon the claim that they will bring vocational education opportunities to all pupils of the area who desire vocational education. The Vocational Act of 1963 states as its purpose that persons of "all ages . . . will have ready access to vocational training . . . suited to their needs, interests, and ability . . ." (65) Consultants to this study agree that the area vocational school should be providing vocational education for the slow learner. And, as pointed out in Chapter I, the philosophy of the Department of Public Instruction for the Commonwealth of Pennsylvania encourages area vocational-technical schools to include programs for persons of divergent abilities and needs. (60)

Should the Franklin County Area Vocational-Technical School Serve the Slow Learner?

Although relatively few Pennsylvania area vocational-technical schools are providing any vocational education instruction for the slow learner, some area schools are accepting a small number of slow learners and a few schools are developing plans to include slow learners in programs that they now have.

The philosophy of the Franklin County Area Vocational-Technical School promises that,

> "The vocational-technical school program will be sufficiently comprehensive to provide laboratory courses for girls and boys of varying interests and abilities." (See APPENDIX F)

Discussions with local employment counselors (See APPENDIX I), examination of the 1960 Census Report, and the results of the Franklin County Area Vocational-Technical School Occupational Study indicate that there are many fields of employment in Franklin County for which the slow learner can be trained. Although the Franklin County Area Vocational-Technical School Occupational Survey obtained responses from employers accounting for nearly 96% of the skilled occupations, it failed to uncover 70% of the occupations of significance to the vocational preparation of the slow learner.

The United States Census registers a total of 19,905 employees in these occupations: clerical and kindred, sales workers, service workers, private household workers, farm laborers, operatives and kindred, and laborers with the exception of farm and mine laborers. (Fig. 1) The Franklin County Area Vocational-Technical School Occupational Survey listed only 6031 employees in the comparable categories of clerical and sales, service workers, agriculture, semi-skilled and unskilled. (Fig. 2) The 19,905 employees represent 61% of all occupations recorded in the 1960 census for Franklin County.

Although some of the foregoing instructional areas are provided for in the home high school by courses in agriculture, homemaking and commercial subjects, it is obvious that the area vocational-technical school should provide instruction in many other areas.

Can the Franklin County AVTS Provide Vocational Education for the Slow Learner?

Replies to the SURVEY OF COURSES were obtained from the superintendent and director of the Franklin County Area Vocational-Technical School, from the guidance counselors of Greencastle-Antrim High School, Shippensburg Area High School, and Waynesboro Area High School, and from three employment counselors serving Adams, Cumberland, Dauphin and York Counties. (See APPENDIX K: Exhibit V).

Two of the respondents indicated that they had previously taught one of the seventeen courses included in the survey. Because this question was used to provide a way to validate the group responses, the responses of these two individuals were checked for agreement with the group responses received for the two courses named by them (Marketing Technology and Machinist). Both believed substantially the same as the group in response to Questions 4 and 6. The group believed that the machinist course could accommodate two or three slow learners without adversely affecting the overall instruction. The machinist

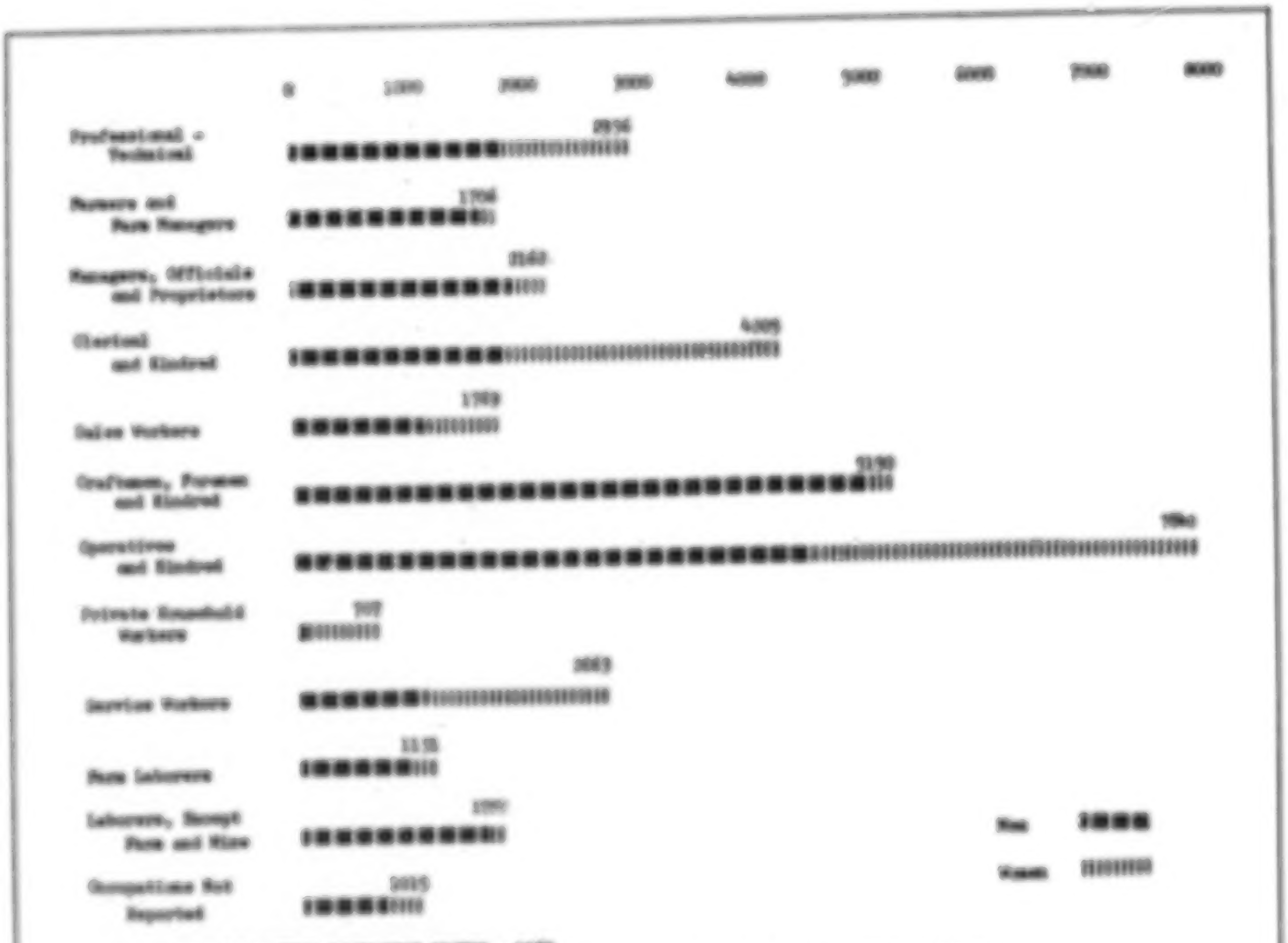


Fig. 1

FRANKLIN COUNTY OCCUPATION GROUPS - 1960
(Data from Table 84, PC (1), 40D, Pa., United States Census of the Population, 1960.)

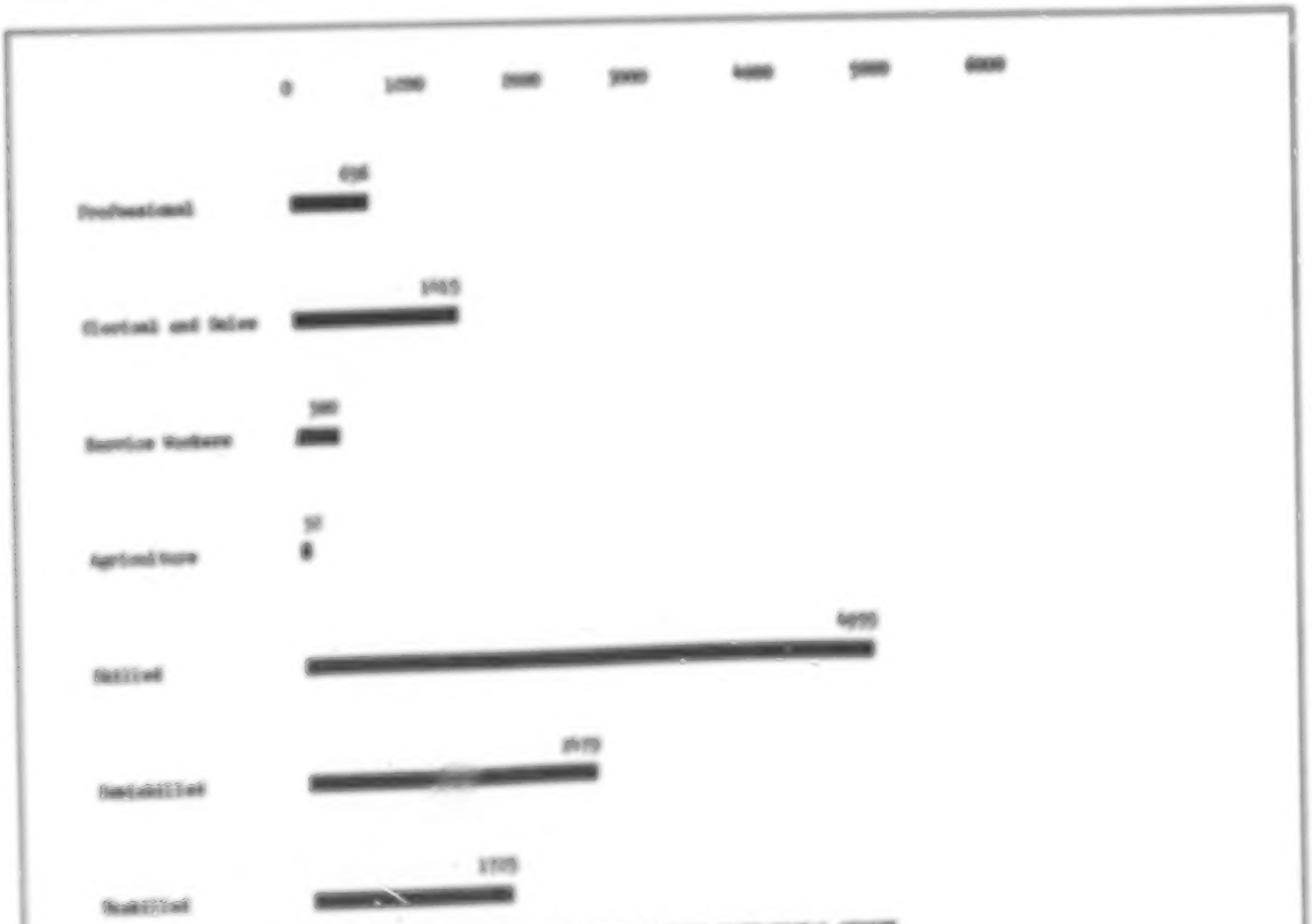


Fig. 2

CLASSIFICATION OF JOBS REPORTED IN THE FRANKLIN COUNTY OCCUPATIONAL SURVEY
(Occupations classified by use of the *D.O.T. number assigned.)

*Dictionary of Occupational Titles, 2nd Edition respondent indicated that he was doubtful whether this could be done but that two or three slow learners could be accommodated. The marketing technician respondent agreed with the group in believing that the slow learner could be taught in the marketing course; however, he was more liberal than the group by suggesting that up to one-half of the class be made up of slow learners.

Questions 7 and 8 attempted to define the courses in terms of the I.Q. range one may expect to find among the pupils and in terms of the average ability required for the respective courses. Again, the two experienced teachers showed no marked deviation from the group. The machinist respondent would have set the low and the high of the range as well as the average ability required 2½ points higher on the I.Q. scale than the group. The marketing technician respondent showed less agreement. He would lower the range for the marketing course to include pupils 2½ points below the low established by the group median and he would raise the high of the range 7½ points. For the average ability required, he would expect normal intelligence of 100 -- ten points above the average established by the group. Considering the responses of this individual to Questions 4 and 6 in light of the responses to 7 and 8, it would appear that his actual position with respect to this course is closer to the position of the group than any question interpreted independently would indicate.

Place of the Slow Learner in Courses Studied

Most respondents believed that all seventeen courses except Farm Machinery Sales and Service, Electronics, and Manufacturing and Materials Control could accommodate slow learners to some degree. They had doubts as to whether the slow learner could function within the area of Farm Machinery Sales and Service; on the other hand, they were certain that the slow learner would not be able to work in Manufacturing and Materials Control. (See APPENDIX K: Exhibit

8

V, Question 4) The reader will recall that Manufacturing and Materials Control was described by the Franklin County Area Vocational-Technical School as a technical course and was included in the list of seventeen courses reviewed as a control. It is reassuring to note that the eight respondents listed this course as one not suitable for the slow learner.

The respondents were in rather substantial agreement that the majority of the seventeen courses listed could include some slow learners. (See APPENDIX K: Exhibit V, Question 6) Again, Manufacturing and Materials Control was singled out as being one that could not accept any slow learners. The Health Assistant course was also marked as one severely limited in this respect. Those best suited to serve the slow learner were:

Auto Body Repair
Building Construction
Cosmetology
Landscaping and Horticulture
Machine Tool Operator
Marketing Technician
*Practical Nursing
Welding.

Description of the Seventeen Courses in Terms of I.Q.

The scales used in Questions 7 and 8 were inserted to provide a means to temper the responses received to Questions 4 and 6. However, they have served more to validate than to temper the previous responses. (See APPENDIX K: Exhibit V, Questions 7 and 8) All courses named above, except Landscaping and Horticulture, received for the "average ability required" a group median of 90 I.Q. or below. However, for Landscaping and Horticulture the group believed the range should extend down to 75 I.Q.

In addition to the eight courses previously named as being most able to accommodate slow learners, two courses -- Textile Fabrication and Design, and

---

*Pennsylvania law limits this course to adults. However, many respondents offered the opinion that the facilities could be used to train nurse's aids and aids for service in convalescent homes.

Plumbing, Heating, Pipefitting and Sheet Metal -- would also be able (on the basis of the responses to Questions 7 and 8) to serve the slow learner in some respect.

Career Opportunities for the Slow Learner in the Forty-four Occupations Listed

Thirty-four of the forty-four occupations listed were named by one or more respondents as being suitable for the slow learner and also related to one or more of the seventeen courses reviewed. (See APPENDIX K: Exhibit V, Question 5) Occupations named four or more times were:

Arc Welding
Auto Body Repair
Combination Welding
Mechanics (Maintenance and Service Industry)
Nurse's Aids
Painters (Construction and Maintenance)
Sheet Metal Workers and Layout
Stock Clerks
Warehousing.

(Eighty-six other job titles not on the list of forty-four occupations, but related to one or more of the seventeen courses, were mentioned.)

By combining this information with the information supplied by the respondents to the two general questions on the last page of the questionnaire (See APPENDIX K: Exhibit I, General Questions 1 and 2), the number of occupations listed as suitable for the slow learner is increased from thirty-four to thirty-eight, with the result that eight more occupations are added to the list of nine just mentioned. They are:

Assembly Packers
Cooks and Helpers
Dry Cleaning Establishment Workers
Sales Clerks
Sewing Machine Operators
Shipping Workers and Clerks
Painters
Waitresses and Waiters.

These seventeen occupational titles account for 28% of the "present employees" reported in the Franklin County Area Vocational-Technical School Occupational Survey. They represent 25% of the "present employment needs;" 33% of the 1966-68 "employment needs;" and, 42% of the 1968-71 "employment needs."

Relating the Forty-four Occupations to the Seventeen Courses

Questions 2 and 3 were designed to make the two general questions meaningful and to assist with the definitions of courses.

In examining the returns for these questions, one is amazed at the large number of occupations named and agreed upon by fewer than half of the respondents. (See Fig. 3)

As a case in point, Marketing Technology has fourteen different occupations nominated by one or more respondents as being "closely enough related to the course to be justifiably included." (See APPENDIX K: Exhibit V, Question 2) It should be noted that for nine of these occupations less than a majority of the respondents have concurred. On the other hand, five other occupations have been named and have received the support of the majority of the respondents.

Such a distribution of responses would indicate a need for much more specific course descriptions, and, especially, good communication between the vocational-technical school staff, the guidance counselors and the employment counselors. (Such a distribution of responses could also imply that there are instructional areas within the course that could be put to use by flexible scheduling of students and instructors in order to assist in the preparation of students in one or more closely related areas or courses.)

Despite the diversity of occupations named for certain courses, the agreement of six or seven respondents would indicate that the course is clearly related to at least one of the forty-four occupations listed. This is true of every course _except_:

Courses	Number of Respondents in Agreement							
	8	7	6	5	4	3	2	0
Auto Body Repair	*				1	2	2	4
Auto Mechanics	*				1	3	2	3
Building Construction		1	3		1	3	1	5
Cosmetology		1				1		5
Electrical Construction	*		1	1	1	1		7
Farm Machinery Sales and Service					3	1	5	5
Health Assistant					2			2
Landscaping and Horticulture								1
Machine Tool Operator							2	3
Machinist	*			1		1	1	8
Manufacturing and Materials Control							4	7
Marketing Technology		1	2	2	1	1	1	6
Plumbing, Heating, Pipefitting and Sheet Metal	*		2				2	7
Practical Nursing			1					3
Printing			1					1
Textile Fabrication and Design			1		1			1
Welding	*	1	1		1	1	1	5

Figure 3. Number of occupations related to the seventeen courses showing the number of respondents agreeing to the relationship.

---

*Course title appeared as an occupation. Therefore, some respondents did not list the course because it was obviously included.

Farm Machinery Sales and Service
Health Assistant
Landscaping and Horticulture
Machine Tool Operator
Manufacturing and Materials Control.

These courses did not receive a majority response for any one occupation. Here again one could question the adequacy of the course descriptions or the wisdom of including the courses in the Franklin County Area Vocational-Technical School.

However, Landscaping and Horticulture has been justified by the agricultural survey attached to the Franklin County Area Vocational-Technical School Occupational Survey. (See APPENDIX G: Exhibits VI and VII) Machine Tool Operator would appear to be justified from the large number of craftsmen and operatives reported in the 1960 Census Survey. (81)

Relating the Forty-four Occupations to the Needs of the Slow Learner

The two general questions (See APPENDIX K: Exhibit V) were used to provide clues to courses that should be added to the Franklin County Area Vocational-Technical School in order to better serve the slow learner. In combination with Question 5, they were also used to aid in identifying occupational areas suitable for careers for the slow learner and to help in determining the suitability of the Franklin County Area Vocational-Technical School in meeting the needs of the slow learner.

In answer to the two general questions, twenty-two occupations (one-half of the forty-four listed) were named by one or more respondents. Of those named, cooks and helpers, waitresses and waiters, butchers and bakers could properly be instructed in the Foods Preparation and Service course approved for the Franklin County Area Vocational-Technical School, but not included with the seventeen courses reviewed. Of the remaining eighteen occupations named, 50% or more of the respondents agreed by placing all but seven of them within the instructional areas of the seventeen courses included in this study.

For example: seven of the eight respondents believe sales clerks should be prepared in the marketing technology course; six believe that painters should be prepared in Building Construction; etc. (See APPENDIX K: Exhibit V, Questions 2 and 3)

Seven of the forty-four occupations for which no provisions for instruction is made are:

Automotive Equipment Operators
Barbers
Dry Cleaning Establishment Workers
Mechanical Equipment Processing
Molders
Office Machine Operators
Shipping Workers and Clerks

With the single exception of molders, all of these occupations came from the "Supplemental List of Occupations" (See APPENDIX K: Exhibit IV). These are the occupational titles added by the respondents to the Franklin County Occupational Survey. For this reason, it is likely that the number of employees for these occupations exceeds by a significant margin the numbers reported in the Franklin County Occupational Survey. The director of the Franklin County Area Vocational-Technical School advises that many of the respondents to the occupational survey, whom he interviewed, indicated that they reported only those occupations included on the suggested list of 100 DOT numbers. None of the occupations on the "Supplementary List of Occupations" appeared on the "List of 100."

Excluding molders (which appeared on the "List of 100"), the remaining six occupations named above would account for 6%, or 517 workers, of the "present employment" count received by the Franklin County Occupational Survey. Those 517 workers represent 21% of the total number of workers obtained by the Franklin County Occupational Study for occupations not included on the "List of 100."

When it is considered that the Franklin County Occupational Survey accounted for only 10,000 workers of the 32,674 reported by the 1960 census (81), these six occupations offering additional promise for the slow learner become more significant.

Agreement

Throughout this review, the areas of agreement and disagreement of the respondents have been recorded to assist the reader in the interpretation of the findings. One more observation in this regard is appropriate. The responses to Questions 7 and 8 (APPENDIX K: Exhibit V) were divided so that the responses of the employment counselors could be compared with those of the guidance counselors. By so doing, it was discovered that there was a conspicuous difference. The responses of the employment counselors were in marked agreement while those of the guidance counselors were distributed over a wide range.

In every instance except Health Assistant, Farm Machinery Sales and Service, and Manufacturing and Materials Control, the employment counselors were more liberal than the guidance counselors in their belief that the established courses could serve the slow learner.

Adequacy of the Franklin County AVTS to Accommodate the Slow Learner

The responses to this study, expressed in terms of numbers of pupils, would indicate that the Franklin County Area Vocational-Technical School could instruct three hundred slow learners in the seventeen courses reviewed.

If it can be assumed that one-third of the general school population is college-bound (Fig. 4) and 5% is enrolled in special education classes, then 62% remain to receive vocational education either in the home high school or in the area vocational-technical school. At the present time, approximately 31% of the seniors in the vocational-technical school area are enrolled in homemaking,

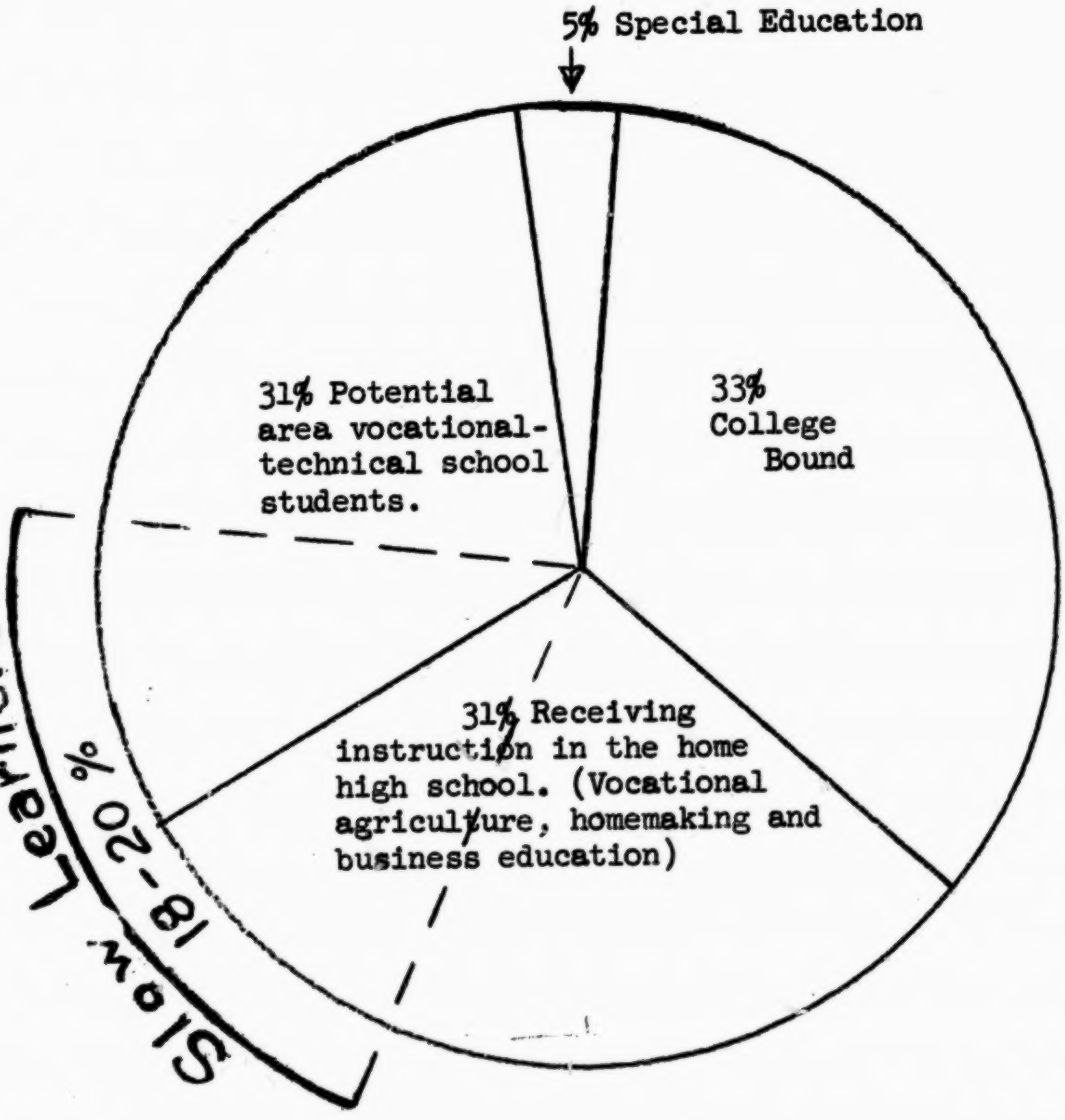


Figure 4. Distribution of Franklin County high school pupils showing the relative but uncertain position of the slow learner.

vocational agriculture and business education in their home high schools. This would leave an equal number, or 31%, to be trained by the area vocational-technical school. Approximately 20% of the total pupil population are slow learners. Assuming that the slow learners were distributed evenly between the vocational courses offered in the home high school and the courses offered in the area vocational-technical school, then it could be expected that one-third of the area vocational-technical school enrollment would be made up of slow learners.

The Franklin County Area Vocational-Technical School is being designed to accommodate 920 pupils. One-third of this number is very close to the three hundred pupils that it is believed that the seventeen courses could handle. If any of the five remaining courses were to include any slow learners -- and it was indicated in this study that Foods Preparation and Service should -- it would seem that the facilities of the proposed area vocational-technical school would be adequate for offering vocational education to the slow learner.

Conclusions

1. The needs of the slow learner for instruction in vocational education are compatible with the organization and purpose of the area vocational-technical school.

2. The Franklin County Area Vocational-Technical School should provide vocational education for the slow learner. This study indicates that an area vocational-technical school in Franklin County should contain a greater percentage of slow learners than the status review of Pennsylvania vocational-technical schools (APPENDIX B) would indicate is generally practiced.

3. The Franklin County Area Vocational-Technical School is able, in the opinion of consultants and respondents used in this study, to include vocational instruction for the slow learner.

4. The shops planned for the Franklin County Area Vocational-Technical School can accommodate slow learners in fair proportion to other students if the curriculum is designed accordingly.

5. There are numerous careers in Franklin County that the slow learners can follow. Of the seventeen vocational-technical school courses examined by this study, Auto Body Repair, Building Construction, Cosmetology, Landscaping and Horticulture, Machine Tool Operation and Welding offer the greatest opportunity for vocational education for the slow learner in Franklin County. Auto Mechanics; Marketing Technology; Plumbing, Heating, Pipefitting and Sheet Metal; Practical Nursing; Printing; Textile Fabrication and Design offer fair educational opportunities. Farm Machinery Sales and Service and Machinist provide limited training possibilities. Electrical Construction per se has very little instructional potential for the slow learner; however, the frequent references by the respondents to "electrician's helper," "automotive electrician," and "simple wiring systems worker" would indicate that these are related job areas that should not be overlooked. Health Assistant and Manufacturing and Materials Control offer no educational opportunities for the slow learner.

6. The Franklin County Area Vocational-Technical School should provide more opportunities for educating the slow learner to find careers in packing, storing and handling of manufactured items, operation of automotive equipment, operation of office machines, and in general mechanical maintenance and processing.

7. Further investigation should be made into the employment and instructional possibilities for dry cleaning establishment workers and barbers in the Franklin County employment area.

8. Course definitions need to be more explicit. Much information is contained in this study which will aid in rewriting these definitions.

9. Better communication is needed between the Franklin County Area Vocational-Technical School, the home school guidance counselors and the employment counselors.

CHAPTER VI

MODIFYING THE FRANKLIN COUNTY AVTS PROGRAM TO SERVE THE SLOW LEARNER

Eliminate the Quota System

Conduct an Annual Facilities Review

The most evident force preventing the slow learner from receiving his opportunity for vocational education is the force generated by the quota system that is imposed upon most area vocational-technical schools. A plant that is too small or has too few shops cannot accommodate all of the pupils who would like to attend. This situation creates a problem that no area vocational-technical school can solve overnight. Therefore, it is one that must constantly be kept foremost in the minds of the area vocational-technical school administrator and the administrative board.

Up-to-date surveys must be acquired by the Board of the pupils' interests and employment needs. These surveys must be interpreted in the light of local experience and trends, in so far as trends can be determined. Every effort must be made to assess these forces and to plan far enough in advance that the educational facilities will be ready when the pupils need them.

To insure up-to-date, continuous attention to this problem, it is recommended that each year the Franklin County Area Vocational-Technical School Board name a committee to review the adequacy of the area school plant and facilities for meeting the needs of all children who desire to attend, and to report its recommendations to the Board.

This committee should contain at least one member of the Board, a member of the Professional Advisory Committee, and a member of the General Advisory

Committee. It should be instructed to consult with the administrative officer, director, curriculum coordinator, guidance director and placement officer of the area vocational-technical school as well as the principals and guidance counselors of participating high schools. The area vocational-technical school should supply the committee with clerical help, interest inventories and employment surveys as requested. Records of the committee's procedures and reports should be kept in order that succeeding committees will have the benefit of the committee's experience. The Area Vocational-Technical School Board should be guided by the committee's recommendations in shaping its building program.

Establish Priorities

Because it will take a considerable period of years to establish the kind of advance planning needed to develop the size of plant and facilities required to adequately serve all vocational-technical school candidates, steps should be taken now to minimize the adverse effect of the quota system upon slow learning pupils.

To insure that every child will have the best opportunity for vocational education that the existing facilities will provide, it is suggested that:

(1) Top priority be given to district quotas.

(2) Second priority be given to twelfth year students desiring admission regardless of ability.

(3) Third priority be given to all eleventh year pupils desiring admission to unfilled courses.

By so doing, opportunity will be given to every senior to obtain basic vocational preparation if he desires it. Opportunities will be extended immediately to include juniors and sophomores if instructional facilities permit; if not, steps should be taken at once to plan for needed space adjustments.

This recommendation is not to be interpreted as encouragement to include any low ability senior in any vocational-technical school course. The writer assumes that all candidates for admission will have good guidance and counseling, and that subsequent recommendations for modification of certain courses will be honored.

Temporarily Modify Courses

How can any area vocational-technical school justify the offering of two-year vocational-technical courses to a limited number of selected students while other students are being denied any opportunity whatsoever for vocational instruction?

During the first few years of operation of the Franklin County Area Vocational-Technical School, every effort should be made to offer as many courses as possible that have short, practical training periods. The presently approved Franklin County Area Vocational-Technical School plan proposes sixteen courses that require three years of preparation, four that require two years, but only two that require a single year. (One, one-year course is adult practical nursing.) Certainly when it is considered that the preponderance of local employment in many of the twenty-two course areas consists of semi-skilled employees, it is evident that some of these courses should, at least during the initial years, be one-year courses designed to prepare helpers and apprentices. When it becomes certain that the twelfth year pupils are served, two-year sequences can be opened. Likewise, three-year sequences can be introduced when all eleventh year pupils have been offered an opportunity for vocational instruction. Only a flexible, well-guided area vocational-technical school staff can plan and implement the needed course adjustments.

Educate the Community, Faculty and Administration

Disseminate the Findings of this Study

It is hoped that the findings of this study will cause citizens and educators to consider and to take steps to overcome the factors that run counter to the interests of the slow learner. This study has been reported in two separate publications, a twelve page booklet designed to be read by both professional educators and lay public, and this report for those who are interested in the details of the study.

All school administrators, school board members, secondary teachers, elementary principals, supervisors and head teachers in Franklin County and in the Shippensburg area will receive copies of the booklet. In addition, copies will be mailed to schools throughout the United States that inquire about the project.

Each director of the Franklin County Area Vocational-Technical School and each participating school district will receive a copy of the full report. Single copies will be made available to school districts when requested.

Copies of both publications will be deposited with the:

Bureau of Vocational, Technical and Continuing Education,
Department of Public Instruction, Commonwealth of Pennsylvania

ERIC - Center for Vocational and Technical Information,
Ohio State University

Gulf Schools Supplementary Education Center
Pearland, Texas

Region K Office, Department of Public Instruction,
Shippensburg State College

United States Office of Education

Provide a Professional Coordinator

In order that no pupil is overlooked, and in order that the participating schools and the area vocational-technical school can perform as a team in the education of each pupil, a full time curriculum coordinator should be employed. This professional should hold at least a masters degree in education and should have had special instruction in curriculum development techniques. He should possess considerable teaching experience with at least part of his experience in a secondary school, a technical school, or, preferably, both. If at all possible, he should be acquainted with public school administrative problems.

The curriculum coordinator should be charged with the development of the curriculum of the area vocational-technical school, with the coordination of all home school instructional activities that relate to the total education of vocational-technical school candidates, and with the development of programs to coordinate community-school efforts. He should coordinate the combined activities of the area vocational-technical school guidance counselor, the home school counselors, the job-to-school coordinator and the area employment counselors. All of his responsibilities should be related to the single goal of providing the best possible vocational-technical education for every pupil who desires such instruction.

Area-wide status should be given to this position so that the coordinator is able to work directly with home school guidance counselors and home school curriculum coordinators, or, the designated responsible professionals in charge of guidance and curriculum.

Establish a Curriculum Development Committee to consider the educational problems of the slow learner as they relate to the area vocational-technical school and the home schools. This committee should contain at least five representatives for each participating school and five for the area vocational-technical school. Each home school should include in their representative body at least one elementary school teacher. The remaining four teachers should represent diverse instructional areas related as closely as possible to the preparation of area vocational-technical school candidates. This committee should be charged with (1) publishing a report setting forth recommendations for home school curriculum development to better prepare the slow learner in kindergarten through the twelfth grade, and with (2) creating sub-committees as needed to locate and/or develop curriculum materials for the slow learner. The vocational-technical school curriculum coordinator should serve as secretary to the committee and should provide the committee with clerical service from his office. He should be an ex-officio member of the committee and should be responsible for charging the committee with its responsibilities.

Members of the committee should receive expenses and a gratuity from the budget of the area vocational-technical school unless the participating districts agree upon an alternate method of financing. Financial provisions for preparing and printing the committee report should be handled in a similar manner.

Inaugurate School and Community Projects of a positive nature that are related to the purpose of helping the slow learner. Such projects should be designed to involve the participants in the search for solutions to problems which will unmask the underlying weaknesses of education for the slow learner. Examples of a few such projects follow:

> Nurturing the non-academic mind. An elementary or secondary school project involving parents, teachers, or both. By searching for ways to nurture the non-academic mind, the participants should gain valuable insights into the strengths and weaknesses of today's education of the child who is not academically inclined.
>
> Helping the reluctant reader to gain success in the elementary school. Parents and teachers could combine their efforts to locate materials and to uncover worthwhile activities which would assist in sustaining the interest of and promotion of the general education of the poor reader who is also likely to be a slow learner.
>
> Coaching reluctant learners. In either the elementary or the secondary school, parents and other interested members of the community could assist slow learners by providing coaching services, under the guidance of the school. By so doing, the coaches would grow to better understand this child, his interests and his educational needs. Such a project, properly implemented, could do much in the way of providing the groundwork for the acceptance of curriculum revisions.
>
> Helping prevent school dropouts. Research points to many behavior patterns of elementary school children which are indicative of secondary school dropout.. By involving parents of elementary school children and interested citizens in a study of these characteristics, the adults can be helped to discover factors that contribute to the dropout traits. Causes may be discovered and ways to eliminate or reduce the influence of the causative factors may be invented.

Out-of-school activities for the disadvantaged child. Any community activity that provides educational or cultural activities for groups that contain slow learners is going to cause those individuals associated with the activity to obtain a better understanding of the slow learner and his educational needs. Musical, dramatic, camping and travel-related experiences are often outside the realm of the slow learner's opportunity.

Building respect and prestige for blue-collar employment. As long as teachers and parents continue to hold before every child the goal of a college education and white collar employment, they are damaging the prestige of all other careers. They are also contributing to a poor self-image of those children destined to follow blue-collar endeavors. Active school-community projects to elevate the prestige and respect due to all employment is needed.

Provide more opportunities for young people - especially those of junior high school age - to associate with business and industrial workers on the job. Such associations should be diverse and should be arranged to include participating experiences as well as observations.

Provide for Home School-Area School Communication

As many avenues of communication as possible must be opened between the home school and the area vocational-technical school. Both organizations contribute to the education of the pupil; therefore, a feeling of oneness is essential. The area vocational-technical school is but a department of each home school; it cannot afford to become an autonomous institution. Neither can it permit itself to take on the complexion of several extremely different participating schools. Positive steps must be taken immediately to open all lines of communication in order to permit the educational philosophies of the participating schools and the area vocational-technical school to converge into a single, constructive, practical effort.

Establish Staff Liaison between the area vocational-technical school and the home high schools. A representative from each participating high school should attend all regular meetings of the area vocational-technical school staff and vice versa. Released time and expenses should be provided for staff members assigned to this responsibility.

Arrange for a One-Day Area-Wide Institute for the full professional staff of the participating schools and the area vocational-technical school prior to the opening of the new facility.

This institute should discuss the philosophy of the area vocational-technical school and the common educational objectives and responsibilities. The consideration of a model vocational education program for the slow learner should receive considerable emphasis in the institute program. Such an institute should be repeated periodically.

Use School Publications to Advantage. A conscientious effort should be made to include the activities of area vocational-technical school pupils and faculty members in home high school publications and vice versa. The area vocational-technical school should prepare numerous publications during the next year or two interpreting the area vocational-technical school offerings to the total community and to the full (elementary schools included) home school faculties.

Make Speakers Available from the professional staff of the area vocational-technical school to all participating schools and area service organizations. All speakers should be well versed in the philosophy of the area vocational-technical school and the program for serving the slow learner.

Review the Academic Requirements in light of the needs of the slow learner. The requirements should then be revised or a guiding statement should be prepared in order that teachers and guidance counselors are not misled into demanding unrealistic requirements of the non-academic pupil. As of this writing many questions pertinent to the welfare of the slow learner remain to be resolved by the Franklin County Area Vocational-Technical School Professional Advisory Committee:

> Are the course requirements of literature, grammar, history, world cultures and biology the same for the slow learner as for the college preparatory student? (See APPENDIX F-3)
>
> Will the slow learner be taught in the same classes as the academic student and be subjected to the same assignments?
>
> Will the teaching methods and materials be the same as those used for the college-bound classes?
>
> Will the slow learner be expected to "measure up" to the same standards of achievement required of academic students in order to receive a comparable grade?
>
> Will identical course titles be used although requirements are differentiated?
>
> Will Blue Print Reading be required of all vocational-technical students including those enrolled in Foods Preparation and Service, and the Medical and Dental Assistants Courses?
>
> Will slow learners entering Landscaping and Horticulture or Auto Body Repair be required to comply with the "skilled trade" academic requirements?

In order that the minimum requirements for high school graduation are not violated, the concurrence of the Pennsylvania Department of Public Instruction should be obtained at this point.

Sponser Professional Development Projects

The Franklin County Area Vocational-Technical School, in order to provide a model vocational education program for the slow learner, must either sponser teacher development projects or must arrange for a teacher training institution to provide this service for them. Such instruction should be developed for:

> Vocational-Technical School Instructors. As part of the Franklin County Area Vocational-Technical School model program for the slow learner, every vocational-technical school teacher recruited from business or industrial employment without professional training in education should receive an orientation course in the essentials of classroom instruction. This course should be the equivalent of a three hour college undergraduate course.
>
> Guidance Counselors. Provision should be made for not less than one counselor from each participating school district and for the vocational-technical guidance counselor to attend the SPICE (Special Program Increasing Counseling Effectiveness) offered by The

Pennsylvania State University in cooperation with the Department of Public Instruction. This program concerns itself primarily with preparing counselors for helping children obtain occupational guidance, an area where guidance counselors are especially weak.

Also, for the professional development of guidance counselors, the Franklin County Area Vocational-Technical School should initiate a program whereby counselors can obtain occupationally related experiences. This program could either be a local project within the area vocational-technical school attendance area or could be developed in cooperation with a nearby college guidance department. Regardless, the program should be initiated as part of the Franklin County Area Vocational-Technical School program to provide an exemplary vocational education for the slow learner.

Classroom Teachers. The one-day area-wide institute has already been proposed. But, this is not enough. A series of inservice experiences should be provided to acquaint teachers with the occupational needs of business and industry. These needs, in turn, should be translated into curricular experiences in every classroom.

Broaden Vocational-Technical School Offerings

Rewrite Course Descriptions

Because of the wide variation in response to the seventeen courses reviewed, it is likely that the "Tentative Course Descriptions" are misleading. A careful review of these descriptions would seem in order. Furthermore, it would serve a very worthwhile purpose if these course descriptions could be expanded, illustrated and printed as separate leaflets (one for each course) to provide more detailed information for the prospective pupil and his parents. In any rewrite of course descriptions, specific note should be made of jobs and careers for which the pupil can be prepared. It is essential that jobs and careers for the slow learner be included where justified.

Increase the Number of Approved Courses

There appears to be significant relationships between some of the courses presently approved for the Franklin County Area Vocational-Technical School. For example, in this study Welding was related to Auto Body Repair; Auto Mechanics; Building Construction; Farm Machinery Sales and Service; Machine Tool Operator;

Machinist; and Plumbing, Heating, Pipefitting and Sheet Metal. This would seem to indicate a need for a short course in basic welding that would be used as part of the longer course required to prepare auto mechanics and others. (It should be noted at this point that Welding, as proposed, is a three-year course.) Similar relationships were observed between Practical Nursing and Health Assistant; between Electrician, Auto Mechanic, and Building Construction; and between Auto Mechanic and Machine Tool Operator. Where short course elements exist that are common to two or more longer courses, it would be of value to identify these instructional areas and offer them in shorter courses. Thus, the shorter courses can be used separately or in combination to increase the total number of courses offered to students.

A more flexible arrangement of subject areas and course structure would, (1) make more courses available to students, (2) reduce the duplication of instructional effort, (3) reduce the cost of vocational-technical education, and (4) improve the calibre of instruction the pupil receives. This "need for an 'educational mix' among the vocational divisions" was recognized by Richard Baker of Auburn University in a recent study of vocational agriculture instructional trends. (4)

Plan for Introduction of New Courses

This study revealed that the Franklin County Area Vocational-Technical School should provide more opportunities for educating the slow learner in careers related to packing, storing and handling of manufactured items, operation of automotive equipment, operation of office machines, and in general mechanical maintenance and processing. Steps should be taken at once to provide instruction in these areas within the framework of the approved vocational-technical school shops or, at least, to begin plans to include the necessary facilities within the next revision of the school's program.

Provide for School-to-Job Transition

Provide a Placement Specialist

All children need help and guidance in finding and in adjusting to their first job. Slow learners especially need this service. The greater the difference between the school and the real employment situation, the greater the need for guidance at this point. The low average indivivual is especially slow to adapt to new situations. Because of years of failure or threat of failure, he is timid and insecure. As a result, he is easily discouraged. Even when he tries a job that he could handle, he is likely to give up in the presence of a brusque or impatient supervisor.

It is important that a member of the area vocational-technical school staff be assigned to help the vocational-technical pupil make this transition.

The professional selected to provide this service must be one who understands children and who can work harmoniously with business and industry. He should be thoroughly acquainted with occupational guidance. He should work very closely with the area vocational-technical school guidance counselor, curriculum coordinator, and classroom teacher. He should aspire toward 100% placement and tenure of all vocational-technical school "graduates." He should be familiar with work-experience programs and should be responsible for developing a variety of work-experience programs aimed at meeting the needs of the pupils served by this school. For example:

Programs for pupils who will terminate their education prior to graduation.
Programs for pupils who plan to graduate.

Programs for students completing short vocational education sequences.
Programs for students completing long sequences.

Programs for the semi-skilled and unskilled.
Programs for skilled and technical students.

Programs involving part-time employment.
Programs involving full-time employment.

Programs of a full-time nature where the student returns to school to complete a sequence of study after obtaining vital job experience.

Begin Implementation of This Program At Once

Although the Franklin County Area Vocational-Technical School is not scheduled to open until September, 1968, action to provide vocational education opportunities and to establish an exemplary program should not be delayed until then. Certain of the foregoing proposals must be set into motion at once.

Each participating school should enroll at least one guidance counselor in the Pennsylvania State University, SPICE Program for the spring or summer of 1967.

The vocational-technical school director should be placed on a full-time basis beginning July 1, 1967.

The curriculum coordinator should be employed at the earliest possible date in order that he will have time to develop a program and make needed preparations for providing the leadership for the development of courses of study, staff competencies, and curriculum materials.

The curriculum coordinator should act at once to work with college educators to develop a three-week "first course" for area vocational-technical school instructors. This "first course" must be ready in time to be used with members of the Franklin County Area Vocational-Technical School staff.

Key staff members should be employed no later than September 1, 1967. The key staff members, as far as the program for the slow learner is concerned, would include the guidance counselor and instructors in Auto Body Repair, Building Construction, Cosmetology, Landscaping and Horticulture, Machine Tool Operators, Welding, Foods Preparation and Service. Because of the possible potential for service to the slow learner and the varied interpretations of course definitions and offerings uncovered by this study, Auto Mechanics; Farm Machinery Sales and Service; Marketing Technology; and Plumbing, Heating, Pipefitting and Sheet Metal should also be included. Of the group of key instructors named above, a few who are presently in the employ of a participating school district will probably be retained by the Franklin County Area Vocational-Technical School. It is likely that these instructors will continue in their present teaching assignments during 1967-68. Therefore, special arrangements should be made in order that the Franklin County Area Vocational-Technical School can obtain their part-time services for essential planning activities.

The full organization of the Franklin County Area Vocational-Technical School, including the Board and the Professional Advisory Committee and staff, should then be in a position to use the school year 1967-68 to initiate the actions needed to place the first part of the described program into operation. By the time of the opening of the Franklin County Area Vocational-Technical School in September, 1968, forces should have been set in motion to provide an exemplary program of vocational education for the slow learner.

This staff preparation phase is essential to the operation of an exemplary program. It is the phase needed to ready the area vocational-technical school and the participating schools for a new approach to vocational education.

Evaluation

The proposals set forth herein will be weighed very carefully before they are accepted by the Professional Advisory Committee and the Board of the Franklin County Area Vocational-Technical School. Nevertheless, a very careful evaluation should be made of the program as it progresses. Records should be kept in order to determine whether or not slow learners are profiting from this program. These records should include job tenure as well as job placement and should provide for the post-high school reaction of slow learners who have participated. Post-high school reactions should be obtained after completion of the first, second and third years of work beyond graduation. It should attempt to determine the kind of self-image the worker holds and his outlook for future career growth and opportunities.

Funding a Pilot Vocational Education Program for the Slow Learner

Reimbursement Provisions

Some of the program suggestions included herein are so closely related to the normal development of an area vocational-technical school that they will require no special funding. However, in order to place this program into operation, it will require (1) an advance investment in staff that may not have been considered by the Franklin County Area Vocational-Technical School Board, (2) funds for additional research, and (3) the addition of two staff members who are not regularly included in area vocational-technical school faculties. All of these expenditures should be 100% reimbursable during the first years under a combination of the provisions of the Vocational Education Act of 1963 and vocational-technical school reimbursement provisions of the Commonwealth of Pennsylvania.

Placing of the director on full time and employing key staff members for the 1967-68 school year may be funded under the provisions of Goal 1 and Goal 2 established by the Pennsylvania State Board of Education.

Goal 1

"Occupational education programs should be broadened and extended with special consideration to employment needs and skills and to present and future labor market needs."

> Goal 2
> "Programs and services should be provided to correct educational deficiencies or handicaps which prevent persons from benefiting from instruction essential to employment. Vocational guidance and counseling should be provided at all levels of programs, and recourse should be available to other social services and agencies where needed." (60)

Consistent with these goals, "special studies" approved by a Department of Public Instruction Review Committee may be funded up to 100%. Amounts expended for teachers' salaries and travel "may be reimbursed 100% the first year of operation; 75%, the second year; and 50%, the third year," except for those courses transferred from schools now operating vocational programs. (60) It is the opinion of the writer that this study should qualify for 100% reimbursement. However, should the Review Committee not agree with this opinion, the study may then qualify for 50% reimbursement if 50% local funds are provided. (In all cases, studies pursued under Goals 1 and 2 may be reimbursed 50%.)

The Federal reimbursement provisions outlined above apply to activities outlined earlier in this report for the curriculum coordinator. However, the curriculum coordinator's services are more closely related to Goals 4 and 5, which are:

> Goal 4
> "Expansion of programs should be accompanied by a large-scale program of research and demonstration in occupational education and related programs." ( )
>
> Goal 5
> "A coordinated program should be available so that students . . . of divergent abilities may have educational opportunities available.(60)

Goal 4 would also be directly related to the involvement of instructional and guidance personnel in advanced planning.

In order to provide funds for adding two new staff members to the Franklin County Area Vocational-Technical School faculty, local funds would be needed for the curriculum coordinator if his services were not granted under Goals 4 and 5 as outlined above. The services of the placement specialist would not be needed until the school year 1968-69. These services should then be reimbursable in accordance with Goals 2, 6 and 7 of the same document.

Estimated Funds Needed - School Year 1967-68

For Professional Staff

Director from ½ to full time #	6,000.00	
Curriculum Coordinator	10,000.00	
Guidance Counselor	7,000.00	
Employment of Key Instructors 7 @ $6,000.00 each	42,000.00	
		65,000.00

For Clerical Staff

Secretary to Director	Existing	
Secretary to Curriculum Coordinator	3,500.00	
Clerk-Typist	3,000.00	
		6,500.00

For Housing and Supplies

Office space for 10 plus 3 Secretaries (heated) $150.00/mo. for 12 mos.		1,800.00	
Electricity, water, etc.		240.00	
Phone service (2)		250.00	
Furniture			
*Desks (10 teacher)	750.00		
*Chairs (10 teacher)	120.00		
*Files (10 side)	400.00		
* Secretarial desks	270.00		
*Secretarial chairs	120.00	1,660.00	
*Typewriters (3)		600.00	
*Duplicator w/ cabinet		150.00	
*Photo copy		450.00	
*Calculator		150.00	
Office supplies		1,000.00	
Correspondence and mailing		200.00	
Printing		500.00	
Consultants and specialists		1,000.00	
Expenses and travel		3,000.00	
			11,000.00
		TOTAL	82,500.00

---

* Furniture and equipment that can be moved into new school plant.

# The Franklin County AVTS presently is retaining a director on a ½-time basis.

Estimated Additional Funds Needed - School Year 1968-69

Placement Specialist	7,000.00

(By the school year 1968-69, the new plant should be open.)

Ability of the Franklin County Area Vocational-Technical School to Finance

Should the Franklin County Area Vocational-Technical School find it necessary to finance the first year program entirely without state and federal assistance, which is indeed unlikely, the $82,500.00 estimated herein would amount to .61 mill based upon its 1965 assessed valuation.

BIBLIOGRAPHY

1. Abraham, Willard. *The Mentally Retarded Child and Educational Films*. Chicago: Coronet Films, 1966.

2. ______________. *The Slow Learner*. New York: The Center for Applied Research in Education, Inc., 1964.

3. Adler, Mortimer J. "The Crisis in Contemporary Education," *The Social Frontier*, V (February 1939), 141-144.

4. Baker, Richard A. "Vo Ag Teachers Face New Instructional Patterns," *American Vocational Journal*, XLI, no. 6 (September 1966), 34-35.

5. Bitter, James A. and D. J. Bolanovich. "Development of Vocational Competence in the Moderately Retarded," *Mental Retardation*, IV, no. 6 (December 1966), 9-13.

6. Blackman, Leonard. "Teaching Machines and the Mentally Retarded," *School Life*, XLVI (November 1963), 10-12.

7. Bugher, William Keith. *An Evaluation of the Superintendent's Concept of and Impact on Selected Aspects of Vocational Programs*. [unpublished dissertation], Purdue University, 1961.

8. Burchill, George W. *Work-Study Programs for Alienated Youth*. Chicago: Science Research Associates, Inc., 1962.

9. Burkett, Lowell A. "Let's Make A Pledge," *American Vocational Journal*, XLII, no. 1 (January 1967), 8.

10. Buss, Otto E. "Educating the Submerged 25 Per Cent," *California Journal of Secondary Education*, XX (March 1945), 158-159.

11. Capobianco, R. J. and Helen B. Jacoby. "The Fairfax Plan: A High School Program for Mildly Retarded Youth," *Mental Retardation*, IV, no. 3 (June 1966), 15-20.

12. Carlin, J. "Five Years of Curriculum Planning in the Vocational High Schools," *High Points*, XXXI (April 1949), 5-21.

13. Cirone, Claire and Patricia Emerson. "A Continuous Progress Program: The Slow Learner in a New Setting," *New York State Education*, LIII (January 1966), 19.

14. Coleman, James S. and Others. *Equality of Educational Opportunity*. Washington, D.C.: U.S. Government Printing Office, 1966.

15. Conference Report. *New Horizons in Vocational-Technical-Occupational Education*. Doylestown, Pa.: Bucks County Public Schools, 1965.

16. *Cooperative Supervised Job Training Program: An Interim Evaluation Report*. Springfield, Ill.: Board of Vocational Education and Rehabilitation (August 1965).

17. Cotter, Katherine. *Audio-Visual Education for the Retarded*. Chicago: University of Chicago Press, 1963.

18. Debolt, William H. *Comparative Study of Vocational Dropouts and Graduates*. [unpublished master's research paper], Shippensburg, Pa.: Shippensburg State College, February 1964.

19. DeHaan, Robert F. and Jack Kough. "Helping Emotionally, Socially and Educationally Maladjusted Children," *Helping Children With Special Needs*. Elementary School Edition, Vol. II, Section III, Chicago: Science Research Associates, 1956.

20. ______________________. "Identifying Emotionally, Socially, and Educationally Maladjusted Pupils," *Identifying Children With Special Needs*. Elementary School Edition, Vol. I, Section III, Chicago: Science Research Associates, 1955.

21. ______________________. *Identifying Students With Special Needs*. Secondary School Edition, Vol. I, Chicago: Science Research Associates, 1956.

22. Dennard, Cleveland Leon. *The Administrative Organization and Practices of Selected Vocational-Technical Schools in the United States with Implications and Projections for the Atlanta Vocational-Technical School*. [unpublished dissertation], University of Tennessee, 1965.

23. Dexter, Lewis Anthony. *The Tyranny of Schooling: An Inquiry into the Problem of Stupidity*. New York: Basic Books, 1964.

24. *Dictionary of Occupational Titles*. Third Edition, 2 vols., Washington, D.C.: U.S. Department of Labor, 1965.

25. Dodds, B. L. and Ruel E. Tucker. "What is a Good Program for the Slow Learner?" *National Association of Secondary School Principals Bulletin*, XXXVI (March 1952), 329-337.

26. Dugan, Willis E. "Vocational Guidance: A New Accent in American Education," *American Vocational Journal*, XLI, no. 7 (October 1966), 14-15.

27. Duncan, John. *The Education of the Ordinary Child*. New York: The Ronald Press, 1943.

28. Featherstone, William B. *Teaching the Slow Learner*. New York: Bureau of Publications, Teacher's College, Columbia University, 1951.

29. __________________. "What Do We Know About Slow Learners?" *Clearing House*, XXV (February 1951), 323-328.

30. Gallington, Ralph O. "An Experimental and Demonstration Project for Special Vocational Students of School District No. 5, Alexander County, Illinois," *Report to the Board of Vocational Education and Rehabilitation*. [unpublished], Southern Illinois University, October, 1965.

31. *The General Aptitude Test Battery Bulletin*. Harrisburg, Pa.: Pennsylvania State Employment Service, 1966.

32. Gibbs, Elsie F. "The Slow Learner in the Secondary Schools," *California Journal of Secondary Education*, XXIV (April 1949), 199-202.

33. Goldstein, Edward. *Selective Audio-Visual Instruction for Mentally Retarded Pupils*. Springfield, Ill.: Charles C. Thomas, 1964.

34. Goodman, Paul. "Why Go To School?" *The New Republic*, CIL (October 1963), 13-14.

35. *Guidance and the School Dropout*. ed. Daniel Schreiber, Washington, D.C.: National Education Association, 1964.

36. Helager, David. *Research Project: Experimental Program 00018*. Aurora, Ill.: School District 131, 1965, *duplicated*.

37. Hutchins, Robert M. *The Conflict in Education*. New York: Harper Publishing Co., 1953.

38. *Imperatives in Education*. Washington, D.C.: American Association of School Administrators, 1966.

39. Ingram, Christine P. *Education of the Slow-Learning Child*. New York: The Ronald Press, 1960.

40. Jeroslaw, H. *Development of a Model Resource Unit in World History for Slow Learning Students in Huntington High School*. [unpublished dissertation], Columbia University, 1966.

41. Johnson, G. Orville. *Education for the Slow Learners*. Englewood Cliffs, N. J.: Prentice-Hall Inc., 1963.

42. Johnson, G. Orville and Kathryn A. Blake. *Learning Performance of Retarded and Normal Children*. Syracuse: Syracuse University Press, 1960.

43. Kemp, Barbara H. *The Youth We Haven't Served*. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1966.

44. Kirk, Samuel A. *Educating Exceptional Children*. Boston: Houghton Mifflin Co., 1962.

45. Kolstoe, Oliver P. and Roger M. Frey. *A High School Work-Study Program for Mentally Subnormal Students*. Carbondale, Ill.: Southern Illinois University Press, 1965.

46. McDowell, L. C. *Vocational Education and Changing Needs*, XXXVIII, no. 1, Bulletin of the Bureau of School Service, University of Kentucky, September 1965.

47. Magnum, Garth L. "The Vocational-Technical Education Debate Flourishes," Phi Delta Kappan, XLVI (September 1964), 30-31.

48. Manchel, Frank. "The Screen and the Book: A Solution for Slow Learners," The English Journal, LIII (March 1964), 206-207.

49. Meany, George. "Schools - and Dignity - for 'All'," Phi Delta Kappan, XLVII, no. 9 (May 1966), 498-499.

50. Minnesota State Advisory Council. "Minnesota Policy Statement on Vocational Education," American Vocational Journal, XLI, no. 9 (December 1966), 48-49.

51. NEA Research Division. "High School Methods with Slow Learners," Research Bulletin of the National Education Association, XXI, no. 3 (October 1943).

52. Nelson, Gordon L. A Statement of the Problem. Maple, Wis.: Northwestern High School of the Common Joint School District No. 1, 1965, duplicated.

53. Niesen, Norman J. "Programs for the Mentally Retarded in a Public High School," Mental Retardation, III, no. 2 (April 1965), 27-28.

54. Oelke, Merritt C. "We Must Reach the Non-College Bound," American Vocational Journal, XLI, no. 7 (October 1966), 16-17, 56-57.

55. Orange County Multi-Occupational Special Youth Project. Winter Park, Fla.: The Florida State Employment Service, 1965.

56. Orange County Summer Guidance School for Dropout Recovery. Santa Ana, Calif.: Orange County Schools, 1965.

57. Peller, Helen. "Adjusting in Adjustment Class," High Points, XXIX (April 1947), 72-78.

58. Pennsylvania Department of Internal Affairs. Statistical Abstract 1966. ed. Genevieve Blatt, Harrisburg, Pa.: Bureau of Publications, 1966.

59. Pennsylvania Department of Public Instruction. Bulletin 330: Vocational-Industrial Education in Pennsylvania. Harrisburg, Pa.: Dept. of Public Instruction, 1951.

60. Pennsylvania State Board of Vocational Education. Goals and Policies to Improve and Expand Vocational and Technical Education. Harrisburg, Pa.: Pennsylvania State Board of Vocational Education, March 10, 1966.

61. Peter, Laurence J. Prescriptive Teaching. New York: McGraw-Hill Book Co., 1965.

62. Peterson, Charles. "Programmed Learning - One Avenue to the High School Diploma," California Education, III (April 1966), 25-26.

63. Price, J. E. "Automated Teaching Programs with Mentally Retarded Students," American Journal of Mental Deficiency, LXVIII (July 1963), 69-72.

64. *Progress Report: Cambria County Program of Occupational Preparation for Educable Mentally Retarded Adolescents.* Ebensburg, Pa.: December 1965.

65. *Public Law 88-210.* Enacted by the 88th Congress and signed into law by President Lyndon B. Johnson, December 18, 1963.

66. Rees, Senator. *Senate Bill 1379.* Sacramento: California State Legislature, 1964.

67. Report of the Committee on Labor and Public Welfare, U.S. Senate. *Toward Full Employment: Proposals for a Comprehensive Employment and Manpower Policy in the United States.* Washington, D.C.: U.S. Government Printing Office, 1964.

68. Report of the Panel of Consultants on Vocational Education Requested by the President of the United States. *Education for a Changing World of Work, Appendix III.* Washington, D.C.: U.S. Government Printing Office, 1963.

69. Robinson, Halbert B. and Nancy M. Robinson. *The Mentally Retarded Child.* New York: McGraw-Hill Book Co., 1965.

70. Seashore, Harold G. "Human Resources and the Aptitude Inventory," *Test Service Bulletin*, no. 41 (May 1951), 2-10.

71. Seeley, R. D. "A Junior High Care Program for Slow Learners," *School Executive*, LXXIII (October 1953), 64-66.

72. Sheeley, Glenn Sherman. *That More May Learn: Formulation of a Program to Meet the Needs of Slow Learners in Grades Four through Twelve of the Public Schools in Bay Shore, New York.* [unpublished dissertation], Columbia University, 1963.

73. Smith, John Arthur. *Vocational Education in the Comprehensive High School.* [unpublished dissertation], University of Kansas, 1966.

74. Smith, Marion Funk and Arthur J. Burks. *Teaching the Slow Learning Child.* New York: Harper and Bros., 1954.

75. *A Suggested Program for Slow Learners, Secondary Schools.* Rochester, New York: Report to the Superintendent of the Board of Education, March 1958.

76. *A Summary of Major Points in Developing Programs for Persons with Special Needs.* Washington, D.C.: U.S. Department of Health, Education, and Welfare, September 1965.

77. Super, Donald E. *The Psychology of Careers.* New York: Harper and Row, Inc., 1957.

78. Tansley, A. E. and R. Gulliford. *The Education of Slow Learning Children.* London: Routledge and Kegan Paul, Ltd., 1960.

79. *Teaching Rapid and Slow Learners in High Schools.* Bulletin 1954, no. 5, U.S. Department of Health, Education, and Welfare, Washington, D.C.: U.S. Government Printing Office, 1960.

80. "Ten Proven Plans to Prevent Dropouts," *School Management*, (October 1965), 70-74.

81. United States Census of Population 1960. *Pennsylvania, General Social and Economic Characteristics*. Washington, D.C.: Department of Commerce, U.S. Government Printing Office.

82. Venn, Grant. "A Lifetime Concern," *American Vocational Journal*, XLI, no. 8 (November 1966), 16-17.

83. *The Vocational Guidance and Individual Counseling Program for Slow Learners in Adams County*. Gettysburg, Pa.: Adams County Public Schools (November 1966).

84. *Vocational Training for Special Disadvantaged*. (Educational Report from Mantee County, Florida.) *duplicated*.

85. Wallin, J. E. Wallace. *Education of Mentally Handicapped Children*. New York: Harper and Bros., 1955.

86. Williams, Billy Joe. *A Comparison of Employment Opportunities and High School Curriculum Offerings in the South*. [unpublished dissertation], George Peabody College for Teachers, 1962.

87. Willis, Benjamin C. *Study Report Number Three: Programs for Potential Dropouts*. Chicago Public Schools, May 1964.

88. _______________. *Study Report Number Four: Compensatory Education in the Chicago Public Schools*. Chicago, 1964.

U. S. Department of Health, Education, and Welfare
Office of Education
Division of Plans and Supplementary Centers
Washington, D. C.
OE Form No. ________

Budget Bureau No.______

PLANNING GRANT

(P. L. 89-10, Title III)

APPLICATION FOR FEDERAL GRANT TO PLAN A SUPPLEMENTARY EDUCATIONAL CENTER AND SERVICES

OE Project No. ☐

Title of Project: A Model Vocational Education Program for the Slow Learner

The Applicant: Franklin County Board of School Directors

Address: Court House Annex, Chambersburg, Pennsylvania 17201

hereby applies to the United States Commissioner of Education for financial assistance for planning the supplementary educational center, services or activities described in this application, pursuant to the provisions of Title III of the Elementary and Secondary Education Act of 1965 (Public Law 89-10).

THE APPLICANT HEREBY GIVES ASSURANCE TO THE UNITED STATES COMMISSIONER OF EDUCATION THAT:

1. The applicant has the necessary legal authority to apply for and receive the proposed grant;
2. The activities and services for which assistance is sought under this title will be administered by or under the supervision of the applicant;
3. In the planning of the program proposed in the application there has been, and in the establishing and carrying out of that program there will be, participation of the appropriate cultural and educational resources of the area to be served;
4. Any funds received under this grant shall not be used to supplant funds normally budgeted for the planning of services of the same type;

5. The applicant will comply with Title VI of the Civil Rights Act of 1964 (P. L. 88-352) and all requirements imposed by or pursuant to the Regulations of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to the title, to the end that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of or be otherwise subjected to discrimination under any program or activity for which the applicant received Federal financial assistance from the Department; (See Exhibit IV)

6. The project will be operated in compliance with Public Law 89-10 and with Regulations and other policies and administrative issuances by the Commissioner, including submission of such reports as may be required;

7. Copies of this application have been submitted for review and recommendation to the State educational agency;

8. The filing of this application has been authorized by the governing body of the applicant, and the undersigned representative has been duly authorized to file this application for and in behalf of said applicant, and otherwise to act as the authorized representative of the applicant in connection with this application (Copy of the authorizing document is attached, Exhibit I).

I, James K. Gibboney, do hereby certify that all of the facts, figures, and representations made in this application, including all exhibits and attachments hereto and hereby made a part of this application, are true and correct to the best of my knowledge and belief.

DATED: February 8, 1966

Franklin County Board of School Directors
(Legal name of applicant)

By /s/ James K. Gibboney
(Signature of authorized representative)

County Superintendent of Schools
(Representative's Title)

NOTARY PUBLIC: Subscribed to before me this

______________ ______________________________
Date City State

SIGNATURE OF NOTARY PUBLIC______________________________

DATE NOTARY'S COMMISSION EXPIRES______________________________

PART I

GENERAL DATA - PLANNING GRANT

1. Official name and address of local public educational agency submitting this application:

   Franklin County Board of School Directors
   Court House Annex, Chambersburg, Pennsylvania 17201

   County Franklin

   State data processing code for the local district 28-150

2. Name, official title, and address of the person authorized to receive and administer the grant:

   James K. Gibboney, County Superintendent of Schools,
   Court House Annex, Chambersburg, Pennsylvania 17201

   Telephone No.: 717 Area Code 263-4107 Local No. NA Extension

3. Name, title, and address of the project director:

   (To be named)

   Telephone No. ____ Area Code ____ Local No. ____ Extension

4. Types of functions to be funded:

   X Planning of program

   X Planning of facilities

   21,102 Total estimated size of group (number of persons) to be served by this proposed project at the time of application. If possible indicate the general classification(s) of persons or groups to be served by the proposed project.

   The above number represents the total pupil population (public and private) to be served in Franklin County.

   Because this planning project is aimed at establishing a demonstration school, it will serve untold numbers of vocational schools throughout the nation. In Franklin County approximately 50 pupils (number to be determined by the study) of the 2,842 senior high school pupils requesting vocational education would directly benefit from the resultant pilot, model school during one year of operation.

6. Substantive educational and cultural needs that will be taken into account by this project:

Planning for and taking other steps leading to the development of an exemplary educational program including discovering and testing new educational ideas and more effective educational practices and putting into practice those which show promise of success.

Sect. 303(a); 303(b)(3); and..503(a)(4).

7. Total personnel to serve on planning project:

Staff positions	Full-Time	Part-Time	Full-Time Equivalent
Professional	1	8	2.3
Non-Professional	1	0	1.0
Totals	2	8	3.3

8. Estimated Cost of the proposed planning project:

$14,650 Total cost

$ None Total non-Federal support

$14,650 Total Federal support under Title III, P. L. 89-10

$ None Total Federal support other than under Title III, P. L. 89-10

9. Sources and amount of Federal support other than Title III, P. L. 89-10 directly effecting this project: None

10. Sources and amount of non-Federal support for this project: None

PART II

APPLICATION FOR A PLANNING GRANT

SECTION I: ABSTRACT

A. The nature of the problem to be explored:

To determine the feasibility and the desirability of operating a model program of vocational education, especially tailored to serve the needs of the slow learner, inconjunction with the program of an area vocational technical school.

(Although vocational-technical schools endeavor to provide for all children, very few slow learners graduate from vocational-technical programs[1]. Presently, some local schools[2] are providing limited occupational training in an effort to help these children. A cursory search of the literature revealed relatively few studies related to this problem, no studies specifically related to the education of these children in a vocational-technical school, and only two studies[3] that suggested that vocational education specialists and special education specialists work together in planning).

B. Extent to which the innovative and the exemplary will be emphasized:

By creating an awareness of the need for vocational opportunities suited to the abilities and interests of the slow learner, we hope to focus the attention of business, industry and vocational educators upon a problem that should result in new opportunities to utilize the manpower of the slow learner.

---

1. Pennsylvania Survey in Progress, Franklin County Board of School Directors.
2. "Less than 20%" Dr. Rudolph Matyas, An Analysis of Secondary School Programs for Educable Mentally Retarded Children in Public Schools of Pennsylvania, Doctoral Dissertation, Pennsylvania State University, 1963.
3. Snyden, M; Guidelines for a Cooperatively Conducted Workshop Program for Educable Mentally Retarded Youth. Mental Retardation, 1965, 1, 91-94, 120-124.
   Estridge and Partridge, Vocational Rehabilitation for Exceptional Children Through Special Education, Exceptional Children, 1963, 29, 452-458.

Bringing together specialists in special education, vocational education, psychology, business and industry is in itself innovative and the probability of uncovering new ideas and approaches to educating the slow learner will be greatly increased.

A meticulous search of the literature will be made to uncover teaching techniques and innovations that will assist in the education of these children.

A careful evaluation of the existing occupational programs designed by comprehensive high schools for these children in all likelihood will uncover numerous innovations that this study can utilize and serve by assisting in their dissemination.

C. Procedures to be used in planning:

(1) Identify areas of vocational opportunity best suited to the abilities and interest of the slow learner. This will be done by searching the literature, surveying the experience of existing schools, and in conference with specialists in special education, vocational education, psychology, business and industry.

(2) Adopt criteria for optimum vocational educational instruction for the slow learner in cooperation with the above panel of specialists and the Professional Advisory Committee of the Franklin County Area Vocational Technical School.

(3) Examine, insofar as desirable and practical, existing schools purporting to provide occupational or vocational education to the slow learner.

(4) With the help of professional specialists, design a program of vocational education for the slow learner consistant with the findings of this study.

(5) Call in a different set of professional specialists to evaluate the program.

(6) Identify promising offerings, techniques, instructional aids and materials.

(7) Revise the program; determine staff, plant and equipment needs for operating a pilot program for one year subsequent to this project.

(8) Submit the program to the Professional Advisory Committee of the Franklin County Area Vocational Technical School for evaluation and recommendations.

D. Need for financial support:

There is no possibility that this study could be conducted without financial support from Title III of E.S.E.A. There are no state or local funds available to the County Board of School Directors for this purpose. We have checked this with the Bureau of Special Services for Pupils and the Bureau of Technical and Continuing Education, Department of Public Instruction, Commonwealth of Pennsylvania.

It is our understanding that a resultant operational program may be eligible for state funds and for funds under Section 4 (b) (4) of P. L. 88-210.

E. Educational and cultural agencies that are participating:

This proposal had its inception as an outcome of a meeting of the Professional Advisory Committee of the Franklin County Area Vocational Technical School. This group will be used to help develop criteria for a successful program and to evaluate the final proposal and make recommendations to the Franklin County Board of School Directors and to the Area Vocational Technical School Board. (See Exhibits II and VI). Consultantions were held with the Bureau of Special Services for Pupils (Exhibit VII) and the Bureau of Technical and Continuing Education (Exhibit VIII), Pennsylvania Department of Public Instruction and with the Department of Special Education (Exhibit IX) of the State College at Shippensburg. In addition to the above, intent to participate has been indicated by the Area Vocational Technical School Board (Exhibit II). The Community Action Committee (Exhibit III), the Pennsylvania State Employment Service, the Chambersburg Chamber of Commerce, the Franklin County Resource Development Committee, the parochial schools of the area (Exhibit X), and the regional Instructional Materials Center (Exhibit V).

SECTION II: PURPOSE OF THE PLANNING GRANT

A. Objectives to be achieved through the planning grant:

(1) Ascertain the extent to which a special program of vocational education is needed for the slow learner.

(2) Determine the occupational opportunities that are within the grasp of the slow learner.

(3) Identify educational techniques and methods that have promise for this group.

(4) Design a vocational-education program for the slow learner of the area served by the Franklin County Area Vocational Technical School.

(5) Examine the feasibility of operating this program in conjunction with the Franklin County Area Vocational Technical School.

(6) Determine the staff, plant, and equipment necessary to operate a demonstration program for one year.

(7) Disseminate findings to schools and agencies concerned.

B. General educational and cultural needs of potential participants:

The potential participant of this program is the school drop-out and the graduate of the "general" course who is not prepared to enter college and who has no salable skill. These children often come from low socio-economic groups and are frequently slow learners. It is estimated that after the opening of our area vocational technical school approximately twenty percent of our senior high school enrollment will remain in this category unless some effort is made to develop a special vocational program that is tailored to their interests and abilities.

Because the slow learner possesses certain limitations in both interest and ability, steps must be taken to identify those job opportunities for which he is best fitted. Furthermore, because his problem has been largely overlooked by both education and industry, attention must be focused upon latent and potential opportunities for utilizing this important source of manpower and providing these individuals with productive vocations.

This project is intended to supplement the efforts of school officials of vocational technical school attendance area #15 which embraces Franklin County in their effort to plan a vocational technical school program to serve all interested children.

C. Emphasis on innovation and exemplary programs:

This planning project is a study designed to bring together the vocational instructor and the special class instructor, the employer and the educator in a search for a new and exemplary way to serve these children.

At present there is no vocational program in Pennsylvania that has been specifically planned to meet the needs of the slow learner.

D. Description of the type of information to be sought and the steps to be followed in planning the proposed project:

(1) The director of this project will work closely with the director of the Franklin County Area Vocational Technical School and the guidance counselors of the area served to obtain an inventory of the number of students not suited for the existing academic and vocational programs. Information will be obtained relative to the mental ability, interests, and the background of these students.

(2) A conference will be held with representatives of various crafts, professions, businesses, and industry and teachers and specialists in special education and vocational education to identify occupations and skills that can be mastered by these children.

(3) Questionnaires will be sent to directors of existing vocational schools and special schools to obtain additional suggestions, to discover unusual instructional techniques, and to locate schools that have given study to this problem.

(4) Representatives of the Bureau of Special Services for Pupils, the Bureau of Technical and Continuing Education, and the Bureau of Curriculum Planning of the Pennsylvania Department of Public Instruction will be consulted to aid in the evaluation of the material obtained and to offer guidance in the development of the model program.

(5) By examining the questionnaires received, by observations made in reviewing the literature and by advice received from the Department of Public Instruction, outstanding schools will be identified and visited.

(6) The Franklin County Vocational Technical School Industrial Survey of January 1966 will be examined to determine which of these skills and occupations identified in #(2) above are in greatest demand in the vocational technical school attendance area #15.

(7) Findings will be reviewed with the Franklin County Area Vocational Technical School Advisory Committee and a determination made of those to be used in the model program.

(8) Consultants in administration, vocational education, special education, psychology, and secondary education will be brought in to help plan a model program, including staff, plant, and equipment needs.

(9) This program will be reviewed and evaluated by representatives of the Department of Public Instruction and the Professional Advisory Committee of the Franklin County Area Vocational Technical School and modified in accordance with the recommendations received.

(10) Plans will be developed to fund and carry out a pilot project utilizing such local funds as might be available and resources available under the provisions of P. L. 88-210 and P. L. 89-10.

E. Planning activities of a similar nature:

No project of this nature has been conducted during the last three years in this county or any adjacent county.

The Franklin County Area Vocational Technical School conducted an Industrial Survey during December 1965 and January 1966 to identify all available job opportunities in the area. Our project will utilize the results of this industrial survey in advancing the objectives of this study.

F. Calendar of Events:

April 1, 1966	Employ director; employ secretary Review literature Conduct inventory of pupils in attendance area
April 20, 1966	Conference with specialists Prepare questionnaire
May 1, 1966	Questionnaire in mail
May 10-20, 1966	Develop criteria with Professional Advisory Committee
June 1, 1966	Employ assistant Tabulate returns
June 10, 1966	Confer with Department of Public Instruction specialists
June 15 - July 14, 1966	Confer with directors of outstanding schools
July 15, 1966	Confer with Professional Advisory Committee
July 16-30, 1966	Develop program in cooperation with specialists Prepare list of promising techniques, offerings, etc.
August 1, 1966	Have program evaluated by team of specialists
August 2-15, 1966	Rewrite
August 15, 1966	Have program evaluated by Professional Advisory Committee
August 30, 1966	Publish report

SECTION III: PERSONNEL

Administrator of the Grant:

James K. Gibboney
Superintendent of Schools, Franklin County
Chief Administrator, Franklin County
Board of School Directors
Court House Annex, Chambersburg, Pa.

Qualifications: Master of Education + 40 hours. Superintendent of Franklin County Schools since 1958. Director-Treasurer of the Franklin County Library. Director of Chambersburg Area Community Chest. Member of Franklin County Army Advisory Committee. Trustee of South Central Educational Broadcasting Council. (No salary for services to this project.)

Duties: Serve as responsible officer. Receive the grant and administer grant for the Franklin County Board of School Directors. Supervise the conduct of the study.

Director of the Project: (To be Selected)

Qualifications: Masters Degree + 40 hours in education. Background in research. Familiar with problems of the slow learner and vocational education.

Duties: Organize and conduct the study in accordance with this proposal and the principles of objective research. Recommend staff and be responsible to the administrator for the successful conduct of the study including the writing and publishing of the report.

Editor and Assistant Director: (To be Selected)

Qualifications: Masters Degree in education. Ability to write.

Duties: Assist the director in the conduct of the study as assigned by the director especially in the writing and editing of the report.

Consultants: (Nine to be Selected)

Qualifications: Specialists in sociology, psychology, education (vocational and of the mentally retarded), business and industry. Must have had extensive experience in field of speciality. Must be associated with reputable college, university, business, industry or school. (Salary: $100.00 per day for two days)

Duties: Five will serve on workshop panels to design a program of vocational education for the slow learner. Four will serve on a panel to evaluate the proposed program.

Clerk-Stenographer: (To be Selected)

Duties: Serve as clerk-stenographer to the director, keeping all records, preparing all correspondence, and typing all reports as assigned by the director.

SECTION IV: FACILITIES AND SERVICES

1. Description of area to be served:

Franklin County is located in south central portion of Pennsylvania. It has a population of 88,172 (1960 census) and embraces 754 square miles.

Franklin County has a market value of $266,472,400 and an assessed value of $120,488,410 as certified June 30, 1965 by the Pennsylvania State Tax Equalization Board. The public school enrollment for the 1965-1966 term opened with 20,365 children.

2. Local Facilities:

No instructional facilities exist anywhere in Franklin County especially oriented toward the vocational instruction of the slow learner. The Area 15 Vocational Technical School, which this study is designed to supplement, plans to include instruction in trades and areas believed to be of benefit to the below average child. Presently two of our local school systems operate a limited experience for the mentally retarded in connection with their special education programs. (Retardates are placed with local business part of the school day to serve as helpers in garages, restaurants, filling stations, etc.) A sheltered workshop is operated in Chambersburg for out of school youth having severe handicaps. (Occupational Services, Inc.)

It is expected that this program, if funded, will coordinate its efforts with the foregoing agencies.

PLANNING GRANT

ECTION V: PROPOSED BUDGET FOR RENTAL OF MATERIALS AND EQUIPMENT AND PURCHASE OF SUPPLIES WITH P. L. 89-10 TITLE III FUNDS, FISCAL YEAR 1965-66

QUANTITY	NAME OF ITEM	Indicate R(Rental) or P(Purchase for each item	Description (Use this column only when the name of the item is not self-explanatory concerning the use of the item.	Unit Cost	Total Cost
	Office Space (5 months)	R		$650.00	$650.00
	Furniture	R (or Gov't surplus purchase)		150.00	150.00
1	Filing Cabinet	R (or gov't surplus purchase)		25.00	25.00
1	Typewriter	R		75.00	75.00
	Paper	P		15.00	15.00
	Telephone	R		150.00	150.00
	Duplicating	R		40.00	40.00
	Documentation	P		100.00	100.00
	Printing	P		600.00	600.00
	Correspondence and Mailing	P		50.00	50.00
1	Calculator	R		30.00	30.00
	Office Supplies	P		200.00	200.00
	Miscellaneous	R or P		25.00	25.00
					$2,110.00

B. **Housing for Proposed Project:**

Office space and equipment for the County Superintendent of Schools is supplied by the Franklin County Commissioners. The present Franklin County Court House facilities are so overtaxed that there is no opportunity of sharing space with this project. However, office space and equipment can be rented locally. Temporary or long term storage of documents and publications related to this project can be provided by the Office of the County Superintendent and the Regional Instructional Materials Center. This project can be accomodated by a single room that is large enough to accomodate three desks, a file cabinet, and a small work table. Conferences can be held in local schools and other public facilities.

C. **Facilities available for pilot project:**

It is anticipated that the pilot project will be operated during the school year 1966-67 and the operational project during the year 1967-68.

For the pilot project it is expected that space will be available in a local school building. (A building project to be completed this summer should make available a four-room elementary building for one year.) It is expected that the Franklin County Area Vocational Technical School will be able to accomodate an operational program in 1967-68.

SECTION VI: PROPOSED BUDGET

REQUEST FOR PLANNING GRANT TITLE III, P. L. 89-10

NAME OF APPLICANT FRANKLIN COUNTY BOARD OF SCHOOL DIRECTORS

ADDRESS OF APPLICANT Court House Annex, Chambersburg, Pennsylvania 17201

DATE SUBMITTED February 8, 1966

FOR PROJECT PLANNING GRANT BEGINNING April 1, 1966 AND ENDING September 1, 1966

Expenditure Accounts | Estimated Expenditures

Title (1)	Account No. (2)	Total Amount (3)	Source of Funds		
			E.S.E.A. III (4)		Other (5)
PROGRAM PLANNING					
1. Salaries - Director	110	$5,640.00	$5,640.00		
Editor	110	2,400.00	2,400.00		
Clerk-Stenographer	110	1,500.00	1,500.00	$9,540.00	
2. Contracted Services	120	1,800.00	1,800.00	1,800.00	
3. Other Expenses From Exhibit II	130	2,110.00	2,110.00	2,110.00	
Travel and other expenses of:					
Administrator	130	100.00	100.00		
Director	130	400.00	400.00		
Editor	130	100.00	100.00		
Consultants	130	600.00	600.00	1,200.00	
4. Total				$14,650.00	None

SUMMARY OF STUDY OF PUPILS ADMITTED TO AND GRADUATED FROM PENNSYLVANIA VOCATIONAL-TECHNICAL SCHOOLS IN 1966 WITH I.Q.'S BELOW 90--ADMISSION STANDARDS AND PROCEDURES.

I. The Problem

A. To provide the official names and addresses of the vocational-technical schools of Pennsylvania.

B. To provide the name of the director of each school (administrative officer).

C. By search of records or use of other means, to determine:

1. The number of graduates in May or June of 1966.
2. The number of 1966 graduates with I.Q.'s below 90.
3. The number of pupils admitted to each school during September to December, 1966.
4. The number of those admitted in 1966 with I.Q.'s below 90.

D. To determine current requirements and procedures for admission to Pennsylvania vocational-technical schools.

II. Procedure

A. Consult with Department of Public Instruction personnel to secure information and guidance to sources of information.

B. Research available materials.

C. Use telephone and/or personal contact to consult with personnel in the field.

D. Compile and analyze information.

E. Summarize findings.

III. Summary of Information

The names and addresses of the schools of the Commonwealth and the names of the directors are attached to this summary. (Exhibit I)

More detailed information regarding each school studied is also attached. (Exhibit II)

IV. Graduates and New Pupils

The number of 1966 graduates from sixteen vocational-technical schools studied* range from zero to 293. (Exhibit III) The latter is found in the Lower Bucks County School. The average number of graduates was 111.7 and the median was 125.0. Of the sixteen schools studied, four reported no graduates for 1966. Three of these are operating what they call Interim Programs until they can get all of their pupils together in one building. The fourth school had no graduates because it just came into existence in September, 1966.

---

*-Does not include Allegheny and Philadelphia Counties.

The percentage of graduates with an I.Q. below 90 ranged from zero per cent to 47 per cent. The writer considers the information on this topic to be basically correct. However, questions to administrators about low I.Q. pupils brought forth a hesitancy to discuss it. Very rarely was accurate information available, and estimates were sometimes changed abruptly after consideration.

It can be said without fear of contradiction that where there were only technical courses offered, or where the technical course pupils could be separated from the vocational course pupils, the I.Q.'s of all technical pupils were above 90.

It seemed equally apparant that when vocational pupils were discussed alone, there were at least some pupils with I.Q.'s below 90.

Odd developments occurred in a case or two. Here there was a hesitancy to admit that there were pupils in the school with the lower I.Q.'s. On the other hand, there was admission that courses such as Building Maintenance were offered and that the pupils taking these courses did have I.Q.'s below 90. The unsolved problem for the writer was how these courses could be offered and not consider the participating pupils a part of the school. This paragraph applies to both 1966 graduates and admissions.

The number of new pupils entering vocational-technical schools in the fall of 1966 ranged from 73 at Westside Area Vocational-Technical School at Kingston to 900 at Fayette County Area Vocational-Technical School at Uniontown. The average number of new pupils was 225.0

The percentage of new pupils with I.Q.'s below 90 covered a wide range from zero per cent to 47 per cent. Again, definite information was not available and the figures given are estimates.

The writer seems obligated to make an observation at this point (which is contrary to good practice in research), but is offered in an attempt to clear up the picture.

The desirability and necessity for the vocational-technical school to present an image favorable to those people in the community who want technical training and the teaching of "Trades" seems to have made it necessary to create a favorable impression in this direction. Obviously, the lower I.Q. groups would not be included in these groups.

In one case, the school was established without any provision for the lower I.Q. group. Future plans did include these pupils after a favorable image had been created and facilities expanded. Several other schools emphasize high admission standards and leave the impression that only the better pupils are admitted. Absolute certainty cannot be established at this point because some of these schools enroll some pupils with an I.Q. below 90. This information seems pertinent to the proper interpretation of this report.

V. Admission Standards and Procedures

Certain requirements for admission to the vocational-technical schools seem rather universal throughout the schools studied.

All but one school require that pupils complete the ninth grade, that one or more officials of the sending school recommend the pupil for admission, and that one or more of the personnel of the receiving school give final approval. The privilege of final approval also carries with it the authority to reject.

There was one exception to the above. One school accepts all tenth graders sent to them from member districts because, it reasons, the sending district is paying the bill. Even this school, however, reserves the right to insist on withdrawal after a period of time if a pupil is not able to succeed.

Some schools require that both the guidance counselor and the principal approve pupil recommendations. Others also include the Industrial Arts or Homemaking teacher's approval. One school requires one or more subject area approvals such as requiring the Art Department approval if the pupil plans to take Commercial Art in the vocational-technical school.

A variety of individuals are involved in "Final Approval" in the different schools. Sometimes this authority is given to the guidance counselor. Other schools place this responsibility in the hands of the director, the principal or the coordinator. Still others use varying combinations of these persons.

Procedures to be followed in admitting new pupils generally require that certain record information be presented to the receiving school as early as January 1st preceding September admission. These items for providing information generally include the pupil's application or a completed questionnaire, school grades, and test results. The written recommendations or approvals from personnel of the sending high school mentioned above are also required.

Some vocational-technical high schools require the sending school to administer certain tests and pass on the results to the receiving school. Other vocational-technical schools administer certain tests to all ninth graders or only to those wishing to be admitted. Tests mentioned by directors were the DAT test, Kuder Preference, reading level, aptitude tests, and others.

Some schools complete a profile card for each pupil being considered. Others attempt to summarize by inspection. In many cases the recommendation of the sending high school is accepted at face value, and pupils are admitted on the basis of this recommendation.

Interviews with prospective pupils is an almost universal practice, but again there are exceptions and variation of method. Only one or two schools interview all applicants. One school does not interview anyone.

In those schools where limited interviews are held, they are generally set up for those pupils whose records show the possibility of failure in the program requested or where more favorable possibilities for the pupil could be found in another area.

Interviews may result in approval of the pupil's request, or rejection for admission or transfer to a more favorable area. Several schools require interviews with parents as well as pupils when there is a possibility of rejection or change in program.

Interviews are also held in schools where there are quota problems. In such cases admission may be denied, or the interview used as the tool to determine who shall be rejected. In some cases the pupil may be found to fit into a program which is not overcrowded, if he is not accepted in the program he has requested.

VI. Conclusions

A. Vocational-technical school administrators are seriously concerned about the possibility of being required to accept pupils who cannot reasonably be expected to show high achievement.

B. Special efforts are being put forth to create a vocational-technical school image which will attract the more able pupils.

C. The need to create a favorable image seems, in some cases, to have crowded out the importance of vocational education for the pupil with just under normal ability.

D. Requirements for admission vary with the abilities of available pupils. What programs are offered is also determined by the same criteria in many cases but cannot be considered universal.

E. Procedures for admission also vary with different schools. Procedure is affected by size of school, whether school is new or has existed for a number of years, by the availability of professional personnel, and by financial support.

F. Half-time in the vocational-technical school and half-time in the home high school is the plan of attendance accepted by a vast majority of the schools studied.

G. Detailed information on the I.Q.'s of graduates and pupils is not available for individual schools. However, schools with a vocational program do admit and graduate pupils with I.Q.'s below 90. The percentage this group bears to the total is estimated to be as high as 47 per cent in one school.

Exhibit I

DIRECTORY

PENNSYLVANIA AREA VOCATIONAL-TECHNICAL SCHOOLS

ALLEGHENY COUNTY	345 Co. Office Building Pittsburgh	Saul Danovitz Co. Director
Parkway West Area Technical School	Campbells Run Road Pittsburgh, 15205	John Garlick Director
Forbes Trail Area Technical School	Industrial Park Sico Road Monroeville, 15146	Archie M. Sparrin Director
Steel Valley Area Technical School	4920 Buttermilk, R #1 West Mifflin, 15122	-------------
CITY OF PITTSBURGH	635 Ridge Ave. Pittsburgh, 15212	Louis J. Kishkunas Ass't. Superintendent
Connelley Vocational High School		Ward W. Swain Principal
ARMSTRONG COUNTY		
Lenape Area Vocational-Technical School	2215 Chaplan Ave. Ford City, 16226	John Smith Director
BUCKS COUNTY		
Lower Bucks County Vocational-Technical School	Winter Road Fairless Hills, 19030	George M. Shaffer Principal
Upper Bucks County Vocational-Technical School	Star Route Perkasie, 18944	H. James Ross Principal
CARBON COUNTY		
Carbon County Area Vocational-Technical School	Jim Thorpe, 18229	James O. Tule Director
CENTER COUNTY		
Center County Vocational-Technical School	Bellefonte (Now) (Pleasant Gap, Later)	Merril Alexander Director
CHESTER COUNTY		
Northern Chester County Vocational-Technical School	P. O. Box 287 Phoenixville, 19460	Donald J. Langley Director

FAYETTE COUNTY

Fayette County Area Vocational-Technical School	Box 122A, Fairchance Road Uniontown, 15401	J. Vernon Crawford Director

LEHIGH COUNTY

Bethlehem Area Vocational-Technical School	240 East Elizabeth Ave. Bethlehem, 18018	Joseph J. Risbon Director

LUZERNE COUNTY

West Side Area Vocational-Technical School	30 West Dorrance St. Kingston, 18704	Lester B. Squier Principal

LYCOMING COUNTY

Williamsport Area Community College	1005 West Third St. Williamsport, 17701	Kenneth E. Carl President

MONTGOMERY COUNTY

Eastern Montgomery County Vocational-Technical School	175 Terwood Road Willow Grove, 19090	Harry Reddig Principal
North Montco Area Vocational-Technical School	175 Terwood Road Willow Grove, 19090	Edward Kapp Principal

NORTHAMPTON COUNTY

Easton Area Vocational-Technical School	811 Northampton Ave. Easton, 18042	Robert A. Nagle Director

NORTHUMBERLAND COUNTY

Northumberland County Area Vocational-Technical School	Seventh and Arch Sts. Shamokin, 17881	Walter H. Miller Director

PHILADELPHIA COUNTY

Edward Bok Technical High School	Eighth and Mifflin Philadelphia, 19148	Arthur Hertzfeld Director
Murrell Dobbins Technical High School	22nd and Lehigh Ave. Philadelphia, 19132	Arthur Hertzfeld Director
Jules E. Mastbaum Technical High School	Frankford Ave. & Clementine Ave. Philadelphia, 19134	Arthur Hertzfeld Director

WESTMORELAND COUNTY

Central Westmoreland County Area Vocational-Technical School	201 Locust St. Youngwood, 15697	Paul Hatch Director
Eastern Westmoreland County Area Vocational-Technical School	Latrobe, 15650	Carl Rorabach Director

YORK COUNTY

York County Area Vocational-Technical School	Co. Sup't's Office Court House, York, 17405	Henry F. Pilker Director

Exhibit II

SUMMARY OF SCHOOL PRACTICES BY COUNTIES

ALLEGHENY COUNTY

Pittsburgh City had five vocational high schools but is phasing them out very rapidly except for Connelley Vocational High School, which will continue to operate. According to Dr. Louis J. Kishkunas, Assistant Superintendent, their philosophy has changed and they now believe that this work can be done best in each of their comprehensive high schools.

They believe that the vocational school must be able to serve all pupils. They have developed 61 courses up to the present time with this philosophy in mind. They recognize that 61 courses are not enough and therefore their ultimate aim is 120 courses.

Over the years the enrollment in vocational schools has been as low as 12% of grades 10, 11, and 12, but has been increasing to the present 59.8%. Of these pupils, 25 to 30% have I.Q.'s below 90.

Standards for admission are dependent upon pupil need and ability, as determined by school records, recommendations of local school guidance counselors, interviews where deemed desirable, and upon summary opinions of personnel of the receiving school.

I was totally unsuccessful in being able to contact the proper people to get information about the three schools listed under Allegheny County.

ARMSTRONG COUNTY

Although this school did not go into operation until September of 1965, there were 146 pupils graduated in June of 1966. The average I.Q. of these graduates was 115 with none below 90.

In the fall of 1966, 177 new pupils were admitted to the school. Again, the average I.Q. was 115, with none below 90.

In many respects, this school is different from most schools contacted. First, it is comprehensive in that pupils attend full-time; secondly, only the technical areas of instruction are included at the present time. The latter practice came about because of a lack of space and a strong desire to set high standards for admission, thus creating the impression locally that this is a very desirable school to attend. "It is for top-flight people" is the image they hope to create. Later, when a building addition is completed, the vocational areas will be added and, of course, standards of admission will be lowered for entrance to at least some of the vocational programs.

The principal told the writer that there was fear of the school being considered a "dumping ground" for the mediocre or weak pupil. If they started with the vocational program, this impression might be created, and once established, the "stigma" would remain indefinitely. The plan in use is expected to have the opposite effect.

Pupils taking the Technical course in this school are all prepared for admission to college. When both vocational and technical pupils are attending, there will be four or five different "tracks;" and it will be possible for the pupils following at least three of these tracks to be prepared for college admission upon graduation. At the present time, seniors may go as far as Elementary Functions in Mathematics and may take Advanced Chemistry.

Standards for admission are high because of the limited offerings. Procedures for admission will be the same when the Vocational course is added.

The pupil's application is considered in the local high school and the DAT test is required. The home high school guidance counselor and principal must recommend the pupil. It is the obligation of the local high school to forward these materials, any test results, pupil's marks, the approved signature of parents, and the recommendation of the Industrial Arts or Homemaking teacher to the vocational-technical school.

Each pupil so recommended is then interviewed by the director of the vocational-technical school. He may recommend rejection, or approval, or he may recommend that further study be given to determine the desirability of placing the pupil in a less exacting area than the one to which he seeks admission. The final decision rests with the director.

BUCKS COUNTY

Lower Bucks County Vocational-Technical School was first occupied in 1958 and a new addition, about rqual in size to the original, was occupied in 1965.

In 1966, there were 293 graduates and the principal estimated that there were 400 new pupils admitted in the fall of 1966. Very few of last year's graduates had an I.Q. below 90, and less than 10 pupils among the 400 new admissions in 1966 fell into this category. In discussing the question of I.Q.'s, the principal emphasized that their Special Education programs were so complete that there would be few pupils with below 90 I.Q.'S that would find the vocational program more valuable than what was being offered in Special Education. (See standards below)

Upper Bucks County Vocational-Technical School originally operated in several schools, and in 1965 came into full operation in its own building. The number of graduates in 1966 was 60, none of whom had an I.Q. below 90. Of the 221 pupils admitted to the school in the fall of 1966, 5% had an I.Q. between 83 and 90, and several were below 83. Therefore, approximately 7% of the total number of new pupils had I.Q.'s below 90.

Standards of admission were so nearly the same in the two Bucks County schools that it seemed desirable to report them under one summary.

Both schools insist that every pupil admitted be capable of success in the program which he plans to follow. It is also emphasized that the impetus for admission, such as applications, tests, and recommendations be the task of the sending high school. Pupils must be recommended by the local high school guidance counselor and principal, and the recommendation must be supported by sufficiently high test scores and academic grades. However, the vocational-technical school makes the final decision on acceptance or rejection.

On a visit to this area about two years ago, it was emphasized to the writer and others that the vocational-technical school guidance counselor makes the final decision. His decision is then approved by the principal, and, in one or two cases where pressure was placed on the administration, by the Board of Directors.

It is also a part of procedure in these schools to interview individuals whose best interests might not be served by following written records alone. Not all pupils are interviewed.

CARBON COUNTY

The Carbon County Vocational-Technical School opened its doors for the first time in September, 1966, with 410 pupils, approximately 10% of whom had I.Q.'s between 75 and 89. There were none under 75 because these pupils are cared for in the Special Education programs.

The general policy for admissions requires that the pupil be fourteen years of age, have completed the ninth grade, and be able to profit from the program he proposes to enter.

Pupils are recommended by the local high school. (The vocational-technical school is not certain who from the home school recommends them because there are so many high schools involved.) Moreover, all pupils must have had the GAT battery of tests to help in determining placement. The final decision on acceptance or rejection rests with the vocational-technical school.

Monthly meetings are held with all guidance counselors of the area to help bring about greater uniformity in procedure. A one-year guidance study was completed some time ago in an effort to determine what procedures should be followed by guidance counselors under the existing conditions. The study was supported by Federal funds. A 100-page report may be found in Mr. Jacoby's office, Department of Public Instruction, Harrisburg, Pennsylvania. The writer has not seen this report.

Oddity: Each school has a minimum quota of pupils. (There was no mention of a maximum quota.) Expenses are based on the minimum quotas and each district must pay on the basis of this quota whether it has the minimum number of pupils enrolled or not.

CENTER COUNTY

Center County is now continuing and expanding the Bellefonte High School Vocational program as an interim program. This will continue until its new building is opened at Pleasant Gap in 1968.

No report on 1966 graduates was available. However, an estimated 25% of the 150 new pupils admitted in the fall of 1966 had I.Q.'s below 90.

CHESTER COUNTY

The Northern Chester County Vocational-Technical School started a program in September, 1966, with 220 new pupils and 140 pupils accepted from existing vocational programs making a total of 360 pupils. Only about 5% of the 220 new pupils had an I.Q. below 90, but it is believed that, when they move into a new building and the program settles down, the percentage will be higher. There are only eleven shops in use this year. Later they plan to have twenty-one shops. Enrollment was limited this year and it appears that those most likely to succeed were admitted first.

Admission at this school is based upon the pupil's interest, a completed questionnaire by the pupil, test scores (DAT and Reading Level), school grades from the home high school, home school guidance counselor's recommendation, and opinions of at least two former teachers regarding pupil's ability to work safely. Final decision is made by the receiving school.

FAYETTE COUNTY

The history of the Fayette County Area Vocational-Technical School goes back to 1955. There were 110 graduates in 1966, none of whom were reported to have an I.Q. below 90.

Under its new set-up, the school has been expanded and this year has enrolled 1200 pupils, 900 of whom are new. First response was that none of these 900 pupils had an I.Q. below 90, but further discussion revealed that there were two classes in Building Maintenance enrolling forty-eight pupils. Two of these have an I.Q. of 68 and the others have I.Q.'s ranging from 70 to 90. The school attempts to place these people in jobs and plans to hold them in school until jobs are found for them. The obligation of Special Education in this area seems to be very important, and, in a sense, is believed to relieve vocational education of a great deal of responsibility.

Standards for admission require that the student be fourteen years of age, have completed the ninth grade, be recommended by the home high school, and have school grades and test results submitted. The final decision on acceptance or rejection rests with the vocational-technical school.

LEHIGH COUNTY

For many years Bethlehem City has operated a vocational-technical program. Since 1965, it has been the center of an "area" school.

In 1966, there were 102 graduates. A pupil in this group with an I.Q. below 90 is a rarity. Of the 285 new pupils entering this fall, almost no one had an I.Q. below 90. Most requests for admission, however, were granted.

Requests for admission come from the home high school which makes the selection of pupils. The receiving school guidance counselor administers the DAT test. If there is a problem, a conference is held in the home high school between the personnel of the two schools. Parents may be called in. A pupil may not be admitted to the program requested, but may be admitted to a less exacting area or refused admission altogether.

LUZERNE COUNTY

West Side Area Vocational-Technical School graduated 90 seniors last spring. Less than 20% of this group had an I.Q. below 90. Of the 73 new pupils admitted in the fall of 1966, an estimated 7% were in this category.

This school operates on a half-time basis. However, this year its program includes 37 full-time post-graduate pupils.

Tests are not required for admission, but, of course, home high school records must be presented. Final decisions are made at a conference with the guidance counselor and coordinator of the receiving school. The main criterion is the pupil's ability to do the work.

LYCOMING COUNTY

In recent years Williamsport Community College has been both a technical institute and a vocational-technical school. Now the institute and the vocational-technical high school--both separate institutions--appear to be part of the present Community College. (It was observed that all three share the same administrative personnel.)

In 1966, there were 150 vocational-technical school graduates. There were 226 new pupils admitted to the vocational-technical program in the fall of 1966. An estimated 15% of both groups had an I.Q. below 90.

The sending high school determines those who shall attend. All who are sent are accepted because the sending district is paying the bill. This practice tends to limit those who will attend. During the school year some pupils may not succeed in the program which they have selected. In such cases the Community College will insist that the case be re-evaluated and the pupil may be required to return to his home high school. This is not done until the receiving school administers tests and an effort is made to find a solution.

A vocational diagnostic three-week summer session is held each year for over-age ninth grade pupils from member districts. The pupils attend voluntarily and no credit is given. The purpose is to try to find a solution to the vocational field. The work is similar to the "exploratory" work in Industrial Arts which we heard so much about at one time. Vocational diagnostic tests are administered and everything is done to help those ninth graders who are in trouble scholastically and who might possibly find help in the vocational programs.

MONTGOMERY COUNTY

At the present time Montgomery County has two vocational-technical schools listed. However, the addresses are the same because those pupils from the northern area of the county attend the Eastern Montgomery County Vocational-Technical School from 3:30 P.M. to 6:30 P.M. each day. Altogether 250 pupils were graduated under this system last year, and a slightly greater number of new pupils was admitted this fall. I was not able to uncover information on I.Q.'s.

Pupils are admitted primarily on the recommendation of the sending high school guidance personnel. Pupil interest, school grades, test records and the recommendation of the Industrial Arts teacher are parts of the total package to be considered.

It appears that a progressive attitude on the admissions problem exists as evidenced by the fact that personnel from several counties in this area are studying the problem.

NORTHAMPTON COUNTY

Easton City has had a vocational-technical program for several years. However, in 1965 the surrounding area was included as a part of the system and a revamping of regulations was necessary.

In 1966, the new set-up graduated 155 seniors and this fall admitted 170 new pupils. In both cases an estimated 20% of the pupils had an I.Q. below 90.

For admission, each pupil must make first, second and third choices of programs, and take the GATB test. Results of the pupil's Kuder Preference Survey and an Industrial Arts report from the sending high school are also necessary. Each pupil must be interviewed by the home high school guidance counselor who will develop a profile sheet for him.

On a questionable assignment the administration of the vocational-technical school will meet in the home high school with the guidance counselor and resolve the problem.

NORTHUMBERLAND COUNTY

The Northumberland County Area Vocational-Technical School graduated 167 seniors, 47% of whom had an I.Q. below 90. For the 138 new pupils admitted in September, 1966, the director of the school indicated that the percentage of pupils with I.Q.'s below 90 was "about the same."

This school is now operating in three centers located at Trevorton, Dalmatia and Shamokin. Only certain programs are offered at each center and almost none of the programs are offered in more than one center.

Those wishing to be admitted must have the recommendation of the guidance counselor and the teacher of Industrial Arts of the sending high school. The guidance counselor of the vocational-technical school administers a battery of six or seven tests to prospects. Passing grades in the home high school are required. The final decision is made by the personnel of the vocational-technical school.

WESTMORELAND COUNTY

In June, 1966, Central Westmoreland Area Vocational-Technical School graduated 161 seniors. Of these, 109 were vocational and 52 were technical pupils. Five per cent of the vocational course graduates had an I.Q. below 90, and none of the technical course graduates fell in this category. There were 180 new pupils admitted in the fall of the same year. Again 5% of those admitted to vocational programs had an I.Q. below 90.

Paul Hatch, Director, was very well versed on vocational-technical matters and was most cooperative.

The principal and the director of the receiving school make the final decision on all admissions. Many tests are administered to prospective pupils. School grades are considered important. If the pupil is not successful in his first year, he is returned to the home high school.

The geographic area served by this school is large, and at present there are more than 50 guidance people involved. In some cases these people lack industrial information and, therefore, may not make the best recommendations. However, the administration soon learns which pupil recommendations to check and thereby some difficulties are avoided. The set-up is such that there is not time to interview all pupils to be admitted, but the more difficult cases are interviewed.

Technical pupils must be prepared to enter college upon graduation. Some academic work is done the half-day at the vocational-technical school to permit enough time at the home high school to meet the balance of the requirements during the other half of the day. (Caution must be exercised in interpreting what is meant here by "academic work." Subjects, such as Advanced Mathematics, might probably be offered in the vocational-technical school; but, since it is required that three hours per day for 180 days be devoted to vocational-technical instruction, there is a limit to the amount of "academic" work the vocational-technical school can offer.)

Eastern Westmoreland County Area Vocational-Technical School graduated 103 seniors in 1966, 10 to 15% of whom had an I.Q. below 90, according to the estimate of the director. About the same percentage of the 160 new pupils admitted in 1966 were in the same category. It was pointed out to the writer that those in the Technical programs are average or above average pupils, and those in the Vocational programs are average and below average pupils.

Reports from the home high school on the results of DAT tests, Interest Inventories, and pupil grades are considered in determining admission. One who wishes to be admitted must be recommended by the home guidance counselor. The director and the assistant director make the final decision. Probability of pupil success, as determined by the above information, is the determining factor.

YORK COUNTY

At the present time, York County Area Vocational-Technical School is housed in three buildings and will not be graduating seniors until new facilities can be put into use. About 350 new pupils were admitted to the programs in the fall of 1966 with a "good sprinkling" of pupils with I.Q.'s below 90.

The home high school guidance counselor recommends pupils for admission. They must be approved by the principal of the vocational-technical school. Records of grades and tests from the home high school are necessary. The recommendations of certain department heads within the home high school are required if considered pertinent.

In case there are more applicants than can be accommodated, each high school is required to rank its applicants in descending order according to ability to profit from vocational-technical school education.

Exhibit III

PENNSYLVANIA AREA VOCATIONAL-TECHNICAL SCHOOLS: YEAR OF ESTABLISHMENT, 1966 GRADUATES AND NEW PUPILS WITH I.Q.'S BELOW 90

		1966 Grads.	% Below 90	1966 New Pupils	% Below 90
ALLEGHENY COUNTY					
Parkway West Area	1964	--	--	--	--
Forbes Trail Area	1959	--	--	--	--
Steel Valley Area	1964	--	--	--	--
ARMSTRONG COUNTY					
Lenape Area	1965	146	none	177	none
BUCKS COUNTY					
Lower Bucks County Area	1958 1965	293	none?	400	none?
Upper Bucks County Area	1962 1965	60	none	221	5-7%
CARBON COUNTY					
Carbon County Area	1966	--	--	410	10%
CENTER COUNTY					
Center County V-T	1968 (Interim)	--	--	150	25%
CHESTER COUNTY					
Northern Chester County	1966	--	--	220	5%
FAYETTE COUNTY					
Fayette County Area	1955	110	none	900	none
LEHIGH COUNTY					
Bethlehem Area	1965	102	none?	285	none?
LUZERNE COUNTY					
West Side Area	1955	90	20%	73	7%
LYCOMING COUNTY					
Williamsport Community College	1965	150	15% ?	225	15% ?

		1966 Grads.	% Below 90	1966 New Pupils	% Below 90
MONTGOMERY COUNTY					
Eastern Montgomery County	1965	250	--	650	--
Northern Montco Area (Now combined with above school.)					
NORTHAMPTON COUNTY					
Easton Area	1965	155	20%	170	20%
NORTHUMBERLAND COUNTY					
Northumberland County Area	1963	167	47% ?	138	47% ?
WESTMORELAND COUNTY					
Central Westmoreland County	1963	161	5%	180	5%
Eastern Westmoreland County	1964	103	10-15%	160	10-15%
YORK COUNTY					
York County Area	1965 (Interim)	--	--	350	"Good Sprinkling"

APPENDIX C

SUMMARY OF THE MEETING HELD AT THE HITCHING POST INN JULY 13, 1966, AT WHICH DOCTOR RUDOLPH P. MATYAS SERVED AS CONSULTANT

The Board of School Directors of Franklin County applied for and was granted approximately $14,500 for the purpose of conducting a study entitled "A Model Vocational Education Program for the Slow Learner." A certain portion of this grant has been set aside for the purpose of awarding honorariums to various persons who, from time to time, are invited to come to Chambersburg to present talks and to consult with the Professional Advisory Committee of the Franklin County Vocational-Technical School. In order to disseminate this information to as many persons as is possible, many teachers and administrators not on the Professional Advisory Committee have been invited to attend to share in the program.

The first consultant, Doctor Rudolph P. Matyas, Director of Special Education for Bucks County Schools, appeared at the Hitching Post Inn, Wednesday afternoon, July 13, 1966. The following is a summary of that meeting.

Mr. Richard Kitzmiller, Assistant County Superintendent of Franklin County, gave a brief background of the study project. He introduced the Director of the project, Mr. Gerald R. Cobaugh, formerly an English teacher at St. Thomas High School. Mr. Cobaugh explained to those gathered that the intent of the study is to broaden the range of those who will be accepted into the proposed Franklin County Vocational-Technical School. He pointed out that historically, vocational-technical schools are rather selective about who enters the program, and that generally an I.Q. of 105 or above is required of a student before he is admitted. The purpose of the study then is to find out if some kind of program can be incorporated into the vocational-technical school which will take care of those below 105 I.Q. There is no lowest I.Q. at which this program will cut off.

Mr. Kitzmiller further explained that the proposed Franklin County Vocational-Technical School is not planning to leave out any student, but he emphasized that it is true that a general I.Q. range from 105 and up has been considered by other schools as the proper I.Q. range for students entering and effectively completing the various curricula of the school.

Doctor Matyas was then introduced. He stated that there has been a trend in recent years to extend vocational-technical training, one of the major reasons being that there has been such an emphasis on students going on to college that the technical fields are not getting the number of persons nor the proper persons to fill vacancies. The trend has been for the students to enroll in the academic curriculum. Upon graduation from high school, those who do not get into college are not prepared to enter an occupation. Our high schools have done a very good job with our academic curriculum and with curricula for the retarded and certain phases of the business field, but there is one range void--what should we do with the slow learners? All across the country, educating the slow learner has come to be a large problem.

In the 1940's many recognized that the slow learner was a great problem, and a movement began which attempted to educate these slow learners vocationally. This program worked out fine as long as the slow learner was actually working at the task--carpentry, plumbing, welding--but as soon as the technical aspects of the vocation were presented, the slow learner became a total failure. He still had a reading problem, he still had a mathematics problem, and he still had a science problem. The attempt to educate these slow learners vocationally was doomed to failure because the slow learner just could not do the academic aspects of his training. He was generally more than adequate at performing the vocational tasks, however. During the 1950's vocational-technical training for the slow learner was practically nonexistent. Many recognized that it was a problem to educate the slow learner in the book phase, but no one seemed to know just how to handle the problem. In the early 1960's the vocational-technical movement again gained momentum. This time, however, the slow learner was not considered as a part of the program, and everyone had the idea that it took above average intelligence to do the book phases of these vocations. The pendulum is now swinging back and more and more persons are becoming interested in designing programs that will offer the slow learners an opportunity to become educated vocationally and to understand the academic phases of his vocational training.

Doctor Matyas said that the main problem was to educate those students who have special needs in order to make them self-supporting members of society. He said that for every high school dropout who does not obtain full-time employment, it costs the Federal government $1,000 per year. If this person is not fully employed, and many are not, from the time he is a school dropout at age sixteen until he is at age sixty-five, you can see that this is an extremely large sum of money. The Federal government now is recognizing this fact. It is simply economics and they are investing more and more money now to prevent dropouts, thereby lowering the amounts of money spent on them. Slow learners, mentally retarded, culturally deprived, and students behind in their academic studies by one year or more are included in the category of students with special needs.

Many times we classify someone as being retarded or a slow learner when actually it is simply a matter of cultural deprivation. He is not really retarded in his culture, and one of the more important factors for us to recognize is the cultural background of each student. We must try from our middle class value standpoint to understand the values of other people, other cultures, and other backgrounds.

Because of automation, many of the unskilled and semi-skilled jobs that have been handled by the educational low class are phased out of existence. This creates a dilemma. What are we going to do with the slow learners who heretofore were engaged in the unskilled and semi-skilled areas. The service industries, those industries that serve the public and include such things as medical and dental assistants, appliance repair, all the food occupations, the cleaning occupations, porters, waitresses, waiters, and so forth are going to be in great demand. Doctor Matyas said that he is not talking strictly about the slow learners, but is using that term to include the many persons who can do vocational tasks but who are actually retarded.

The tests that we administrators present as intelligence tests are not really that at all but are really background tests. If a student has a poor background, he will test poorly. It has been found that many of these so called mentally retarded and slow learners are not really that at all. With a little bit of training these students improve their self-concept and upon retesting are found to be "smarter" than they were before. Some studies have shown that measured intelligence can jump as much as twenty points just by improving the self-concept of the previously "retarded" child. Approximately fifty per cent of the slow learners have a different cultural background and a different set of values from what the middle class have. Any kind of program built around this type of student must invariably recognize that these students are different and must be treated differently. A vigorous guidance program is needed. You must have someone who understands these slow learners;

you must have someone who is dedicated to the task of improving their lot; you must have someone who is willing to give of himself whatever must be given to raise the standards of value and the standards of education for this type of pupil. In the programs now being conducted it is found that a great deal of common sense, push, and guidance are needed to make the program successful. It must be recognized that an even more important factor than the vocational training part of the program is the understanding of students who are different--different from a cultural, frustrational, and motivational standpoint. This idea has to be built into a program. Understanding is more important than patience in training these students.

QUESTION: The question was raised from the floor, "How can someone give these pupils from various subcultures the ability to identify with the middle class value system without them becoming emotionally disturbed because of the apparent dichotomy?"

ANSWER: Doctor Matyas responded to this question by saying that a great deal of individual counseling is necessary to overcome this possible and probable emotional situation. Many of these school dropouts come from generations of school dropouts, and they are expected by their families to be dropouts too. Thus it takes a great deal of reinforcement on the part of the guidance counselor to overcome this problem. These students know that they are going to have to live, and with the proper counseling they can be brought to understand that they will be able to get what they want if they learn a skill and are able to be self-supporting. Talking to them from a material standpoint is one of the best ways to persuade them to enter into the program.

QUESTION: Have you built any kind of home-counseling device into the program that you had?

ANSWER: Doctor Matyas replied that they have, but because of the kinds of background and because of the types of persons with which we are dealing, it has been found that even in programs that have been proven definitely to help the child, still only two out of three parents support the program. It is important that by guidance, you let the parents know what you are doing. Even if the parents are not for it, they may not be against it.

QUESTION: Walter Gilley, Special Education Teacher at Chambersburg Area Senior High School, raised the following question: "What is the difference between the vocational agriculture and the industrial arts courses now being offered and the proposed substitute offerings of the vocational-technical school?"

ANSWER: The vocational-technical school tries to relate the academic subjects with the vocational training part of the course, and it concentrates more on materials than on books, which is not the case in the vocational courses being offered in high schools.

QUESTION: Is it necessary to prepare the students in the vocational-technical school for college work also?

ANSWER: Doctor Matyas said that many of the students that have attended vocational-technical schools do go on to college, and that there is very little difference between them and the students with academic backgrounds. In fact there is a slight trend for college acceptance of students from vocational-technical schools. It is important to remember that for slow learners you have to relate the academic portion of the course to the vocational part differently than you do for the students in academic courses.

QUESTION: Mr. Cobaugh asked Doctor Matyas, when he talked about relating the academic part of the course to the vocational, if he was referring to the academic phase that goes along with the vocational training or the academic studies that were given in the regular high school.

ANSWER: Doctor Matyas said that he was talking about the academic material that is related directly with the job--reading manuals, following directions, etc.

QUESTION: William Robinson, Assistant Principal, Chambersburg Area Senior High School, said that it was not quite clear to him in reference to the vocational-technical school that those whose I.Q. is above 105 would be in the technical phase of the program and that there would be certain phases of the vocational program which would take care of the lower students.

ANSWER: As he sees it, a program for the slow learner would be nothing more than an enlargement of the proposed vocational-technical program.

QUESTION: Mr. Robinson is a firm believer in the comprehensive high school and feels that technical training might better be offered after completion of high school rather than as a part of the high school.

ANSWER: Doctor Matyas replied that it is necessary to train these slow learners to give them a good self-image. Even if there is no job for them, they will still have this image, which will aid them later in life.

QUESTION: Mr. Robinson asked if this program then shouldn't be more occupational than vocational in nature.

ANSWER: Doctor Matyas replied that slow learners must be introduced to a wide variety of subjects to educate them in the work that must be done in the world.

QUESTION: Mr. Robinson said that he thought that a position that would be just as important as the guidance department would be the coordinator of the project.

ANSWER: Doctor Matyas agreed and said that it is important not only for the coordinator to understand these pupils, but also to sell the idea of this vocational-technical school for slow learners to the working world.

QUESTION: Mr. Gilly suggested that there would be a need for two kinds of teachers--one for the academic phase and one for the occupational phase.

ANSWER: Doctor Matyas said that this is absolutely true. The government recognizes this problem of teachers, and they are working with the University of Pittsburgh in training teachers for this job. There is no question but that there will be a staff problem in running this type of school. It is especially necessary to have really dedicated industrial arts teachers.

QUESTION: Robert Beard, Principal, Chambersburg Area Senior High School, asked what plans have been developed as to the curricula in these schools.

ANSWER: Doctor Matyas said that in Bucks County they are planning twenty-seven areas of training for the slow learners in the vocational-technical school.

QUESTION: Mr. Kitzmiller raised the question about the standards that are required to get a job as a barber.

ANSWER: Doctor Matyas said that in all apprenticeships there are standards that have to be met and that often they are quite high, but it is possible to teach these slow learners to meet the standards by teaching them the tests, as is now being done for those who wish to get into the service.

The government should make a survey as to the jobs available to the pupils and then plan a curriculum from there. Some of the training areas for these slow learners might be building maintenance, small appliance repair and service, business employment procedures, auto services, warehousing, vending machine service, landscaping, laundry and dry cleaner, welding, sheet metal, food services, offset printing (multilith, etc.), and farm machinery repair for the boys and cafeteria services, food services, business employment procedures, domestic service, laundry and dry cleaning, and power sewing for the girls. Each student will be given extensive training in at least twelve of these areas. It is important to remember that no student should be ruled out of a program because of his I.Q. rating.

(Doctor Matyas then proceeded to show a film of Cambria County Occupational School, a film which showed the transition of the broken down former high school that had been abandoned for six years and had been repaired and rennovated by the special education boys enrolled in the occupational special school. With constant supervision these boys cleaned, painted, plastered, erected partitions, laid tile flooring, hung suspended ceilings, and did all manner of work necessary to make the former run down school a decent looking place.)

Doctor Matyas said that as these boys hadn't been used to working for long periods of time, their work tolerance had to be built up. After they had accomplished something, they felt that they had succeeded and their self-image changed. At first they didn't care about their appearance and didn't take much pride in their work, but as they began to see the results of their work, their standards and values began to change. There were only three dropouts from the first group who entered the school. In the program there were two special class teachers and two industrial arts teachers. The ratio of students to teachers was one to thirteen or fourteen. One counselor took care of the guidance department.

It was found that these students didn't need as much instruction as was previously thought they would need. Upon graduation they receive a diploma, and they receive report cards during the term. They receive grades in English, social studies, and science.

QUESTION: A question was asked about grouping the different levels of intelligence.

ANSWER: Doctor Matyas said that at first they tried to group them according to levels of intelligence, but they found that this didn't work. The idea was finally abandoned, and now they have homogeneous grouping in that students work at their own rate.

Sixteen is the critical age. They know that they can quit school at that age, and so this is the time they need a special program.

QUESTION: Mr. Cobaugh asked if half-day sessions were best.

ANSWER: Doctor Matyas said that a half-day basis gives them an opportunity to be in the activities of the regular school, and they develop school spirit.

QUESTION: The question was asked about failures, and Doctor Matyas said that there are very few.

The range of intelligence that is accepted at the school includes all the slow learners and about two-thirds of the retarded. Mr. Cobaugh suggested that it be open to everyone with an I.Q. below 105, since that is the point at which pupils are accepted into the regular vocational-technical school.

There were no more questions from the floor and the meeting was adjourned.

THOSE WHO ATTENDED THE MEETING WERE:

NAME	TITLE
Alcorn, Mrs. Robert	Special Education Teacher, Chambersburg Area Senior High School
Barlup, Louis	Principal, Waynesboro Area Senior High School
Beard, Robert	Principal, Chambersburg Area Senior High School
Behe, Michael	Psychologist, Adams County
Cessna, Cecil	Vocational-Agriculture Teacher, Chambersburg Area Senior High School
Conner, Bruce	Superintendent, Cumberland County
Conrad, Robert	Supervising Principal, Greencastle-Antrim Schools
Gabler, Kenneth	Assistant Principal, Chambersburg Area Senior High School
Hoffman, Mrs. Helen	Guidance Director, Waynesboro Area Senior High School
Kitzmiller, Richard	Assistant County Superintendent, Franklin County
Leber, Kathryn	Home Economics Advisor, Franklin County
Lipper, Mark	Editor, Area K Curriculum Center, Shippensburg State College
Martin, Nancy L.	Special Education Teacher, Chambersburg Area Schools
Meredith, Berk	Guidance Counselor, Fannett-Metal Schools

NAME	TITLE
Millar, William	Guidance Counselor, New Oxford Schools
Miller, Kenneth	Assistant County Superintendent, Cumberland County
Myers, Betsy	Guidance Counselor, Tuscarora District Schools
Osen, John	Guidance Counselor, Chambersburg Area Schools
Owens, Robert	Guidance Counselor, Waynesboro Area Schools
Pike, Mrs. Dorothy	Guidance Counselor, Chambersburg Area Schools
Robinson, William A.	Assistant Principal, Chambersburg Area Senior High School
Rutledge, Elizabeth	Supervisor of Special Education, Adams County
Schlichter, Lowell	Guidance Counselor, Chambersburg Area Schools
Schroyer, William	Guidance Counselor, Chambersburg Area Schools
Searle, Dr. Herbert	Area K Curriculum Center, Shippensburg State College
Seiler, James	Supervising Principal, Fannett-Metal Schools
Zapf, Gladys K.	Guidance Counselor, Chambersburg Area Schools
Gilley, Walter	Special Education Teacher, Chambersburg Area Schools
Cobaugh, Gerald R.	Director, Vocational Education Study
Matyas, Rudolph P.	Consultant

A SUMMARY OF THE MEETING HELD AT THE HITCHING POST INN JULY 27, 1966, AT WHICH MISS BARBARA KEMP SERVED AS CONSULTANT

The second in a series of meetings with consultants in the field of vocational education was held at 1:00 P.M., July 27, 1966, at the Hitching Post Inn, Chambersburg, Pennsylvania. The main speaker at this meeting was Miss Barbara Kemp, program specialist for Persons with Special Needs, U. S. Office of Education, Washington, D. C.

Miss Kemp received her Bachelor's Degree in Political Science from the University of Wisconsin and did graduate work at the University of North Carolina in City and Regional Planning. Prior to her present position as program specialist, she worked for several years as an urban affairs specialist. Miss Kemp is the author of the booklet "The Youth We Haven't Served."

Since the prime purpose of this meeting was to hear Miss Kemp speak and to question her on matters relating to her talk on vocational-technical education, Mr. Gerald Cobaugh, Project Director, immediately introduced her.

What follows is a summary and brief discussion of the main ideas of Miss Kemp's talk.

Keeping in mind the fact that she was serving as consultant for future planners of the Franklin County Area Vocational-Technical School, Miss Kemp made the following observations in her report: (1) educators and teachers must forget about low-cost and efficient mass education and begin to listen to the student, to learn about his home life and environment, to discover his talents, hopes and weaknesses, and to be more alert to signs of creativity; (2) the attitudes and misunderstandings of teachers and parents relative to the slow learner and other disadvantaged children must be changed; (3) a thirteenth year may have to be added to the present program for slow learners who want a high school diploma and are willing to go for the additional year; (4) beginning in the elementary grades, children should be taught the value and dignity of physical labor; (5) all students, particularly the slow learners, should be encouraged to participate in extra-curricular activities; (6) at all times and to all students there must be available an extremely effective counseling and job placement service in the high school; (7) slow learners should be integrated as much as possible with the regular school population; (8) letter grades should be used for both academic and vocational subjects as well as for general conduct and achievement; (9) each pupil should be provided with the necessary social skills to be successful on the job; and (10) "academic" subjects should be related to vocational subjects and to knowledge the student will need on the job.

During her two-and-one-half-year association with the Division of Vocational-Technical Education, Miss Kemp has become keenly aware of the changes that must be made in the regular vocational education program. She said that the Job Corps and the Manpower Development and Training Program have been making inroads but that there is no one answer. Each student has his own individual problems and a different approach must, therefore, be used for each person.

There are two kinds of students who will be affected by these new changes in the vocational education program: the mentally retarded student and the slow learner. According to I.Q. tests and the reputation of I.Q. tests, slow learners can do much better if they are taught the things they can understand and if they are allowed to set their own pace of learning. With these changes, Miss Kemp assured the group that the students' I.Q.'s will go up. She said that I.Q. must no longer limit a student's potential nor a teacher's approach. If the teachers and the parents show empathy for each student's life, Miss Kemp said that much progress would be made in incorporating a new vocational-technical program into the regular vocational curriculum. If empathy is shown, students who have been previously rejected or stamped as failures will prove to be successful.

In order to educate teachers and parents about the real problems of the mentally retarded child and the slow learner, Miss Kemp suggested that the teachers be given a month to visit the homes of the students they will be teaching and that the parents be instructed about the changes taking place in the world of work. In this way the teacher will have a more complete understanding of his students' personal and academic problems. And, the teacher will gain the necessary empathy to relate to them. On the other hand, the parents, for instance, will learn that agriculture does not involve only planting and harvesting, but buying and selling as well. Parents will learn that the demands placed upon high school graduates is much greater now than it was thirty years ago.

After dealing with the questions of attitudes, Miss Kemp moved to the vocational-technical program itself. She suggested that a thirteenth year be added to the present high school program for those slow learners in the vocational-technical curriculum who may need an extra year to grasp the material necessary to gain the diploma and to live and work effectively on the job. Moreover, Miss Kemp reminded her audience that, if a vocational-technical program were set up on a work-and-study experience basis, many of the students would be glad to stay an extra year. She highly recommended that a diploma or a certificate equal to a diploma be awarded to all graduates of the vocational-technical program. She said that a work-study program of vocational-technical education is the most rewarding kind of set-up because it gives the student confidence and knowledge about his job, and better assures him of a job once he graduates.

Knowledge and security alone, however, are not enough. Every student needs valuable guidance both before and after he graduates. Miss Kemp strongly recommended that every vocational school have a job placement service whereby students will be easily placed in jobs once they graduate. It is the function of the guidance counselor and the job placement officer to make the "school-to-job" transition smooth and easy.

Teaching children the value and dignity of physical labor is another important factor to consider in establishing a vocational-technical school. Children oftentimes have an aversion to any job which is not, as Miss Kemp puts it, a "white-collar, sitting-down job." Children must be informed that there are many jobs which will give them equal satisfaction. To alleviate this prejudice, Miss Kemp suggested that, beginning in the elementary grades, children should be taught the worth of occupational jobs. This fact should be incorporated into the academic curriculum. They should be instructed about occupations as they are learning mathematics and general science. This same approach to education should continue into the junior high schools where students, for the first time, believe that they are not getting anything out of school and, for this reason, want to quit. At this point, when a student is sixteen and a potential dropout, occupational jobs involving physical labor should be stressed. In schools where this is done, there will be students who will find an interest in an occupation. In every case, when this interest occurs, the student should be encouraged and guided.

Extra-curricular activities are an important part of a student's social development. All students, regardless of their leadership abilities, should be encouraged to participate in at least two clubs and organizations. Miss Kemp cited the example of a school in Connecticut, especially founded for dropouts, where the students, who had never before participated in extra-curricular activities, were very happy with the achievement they were making as leaders and members of organizations. In this instance, Miss Kemp underscores the fact that it was rejection and neglect, and not lack of ability, which hindered these students in the home high school.

In order that no student, especially the slow learner, may feel stigmatized, Miss Kemp felt that every student should be integrated as much as possible with the regular school population. By not segregating them, slow learners, in particular, have friends who will be tremendously helpful in motivating and guiding them. And, as Miss Kemp said, those who help usually profit as much as those who are helped.

As part of motivating the slow learner, letter grades instead of the usual number grades should be given in academic and vocational subjects. These grades should indicate progress and not intellectual superiority or failure. Letter grades should also be given for conduct as well.

Once the slow learner has shown sufficient progress in the vocational-technical program, the program should be flexible enough to allow him to be returned to the home high school to complete his high school training. He should be instructed and trained in the necessary social skills to get along on the job.

The final suggestion Miss Kemp made emphasized the relationship between academic and vocational programs. She said that both should be very closely related so that what is taught in the classroom can be used in the shop and vice versa. She cited the following example as one of the many ways in which to relate the two programs: an English teacher spent the first three weeks on the job in the classes of occupational teachers, learning the language and materials they used. The teacher then had the students write about a particular experience in the shop, using the language of their respective occupations.

At the end of her talk, Miss Kemp answered questions from the group.

QUESTION: Mr. Cobaugh asked whether the thirteenth year that Miss Kemp had suggested earlier should be a voluntary or mandatory requirement and further whether there are any schools that have a thirteenth year in their program.

ANSWER: Miss Kemp said that it would have to be on a voluntary basis. It would only be used for those students who felt they needed more time to learn what they needed to know. In answer to the second part of the question, she said that she doesn't know of any school that operates on this basis, but that the schools are recognizing that many of the students need more time in which to learn a skill.

Robert Owens suggested that the students are always being urged to reach a certain level and if they don't reach it, they feel as if they are failures and consequently don't try. By the time they have reached the age of sixteen, they are so disgusted with school that they can't wait to drop out.

Miss Kemp agreed that there is too much of an academic approach in the schools today. She said that there are programs now that are attempting to train teachers to use a different approach in teaching. She said that only 30% of the students who start graduate from college. This shows that 70% aren't being served properly by even our colleges. Miss Kemp suggested that schools have a full-time job placement officer in the school as well as a counselor.

QUESTION: William Robinson asked what would be the job of the Employment Security Office then if you had a job placement officer in the school.

ANSWER: Miss Kemp replied that the Employment Security Office often doesn't know all the jobs that are available, whereas a job placement officer in the school should make it his job to find all the jobs that are available. Also, a student has his ties with the school and would probably take advantage of the help a job placement officer could give.

QUESTION: Mr. Kitzmiller asked which program would be best in an ideal school: To slow down all of the courses to meet the slow learner, to provide courses just especially for the slow learner, or to deliberately plan courses that are slow along side of courses that are of a faster tempo and permit free election of these courses on the part of any student.

ANSWER: Miss Kemp replied that she would be in favor of the last sugestion. She believes that there should be a great deal of flexibility in any school so that the students may have an opportunity to reach the highest level it is possible for them to reach.

QUESTION: Earl Ensminger asked what should be done about the image of the school so that people do not look down on it.

ANSWER: Miss Kemp said that we need to build a special prestige into these schools, but she doesn't know if this problem can be conquered or not.

Mr. Kitzmiller said he thinks that if a school builds a reputation for educating each student well and to the best of that student's ability, there should be no degradation of the school's image.

Miss Kemp agreed with this and said that many times it is the fault of the teachers themselves for ruining the image of a vocational-technical school.

QUESTION: S. J. Leber asked where it is possible to obtain instructional material for these slow learners.

ANSWER: Miss Kemp said that material is very scarce, but she thinks there is some research being done on it.

Mr. Cobaugh told about the Cambria County School and how they wrote and published their own books and that these books are available for sale.

QUESTION: Dr. Coffey said that he is concerned about the intermediate group--those who are above the special group but below the academic group.

ANSWER: Mr. Cobaugh said that since there are no programs in operation for that particular group of students, we can't talk about them, but that we are actually including all the students in this program.

QUESTION: Elizabeth Rutledge suggested that there is a need for schools to concentrate on the attitudes of the pupils. Many students lose their jobs, not because they can't do the work, but because they don't have the right attitude. She then listed a few schools that are working on this problem.

ANSWER: Miss Kemp said that this is true and that this is why she would suggest work experiences to help solve this problem.

QUESTION: Robert Beard said that he thinks we should start in the elementary grades to remove the slow learners and try to correct their deficiencies so that a vocational program will work later.

Mr. Beard said that he hopes that if a program is started, it will go further than just the high school.

QUESTION: Mr. Cobaugh asked whether there is presently any school in the area that is using a work study program in the school. He was informed that the nearest one is in Hagerstown, Maryland. Mr. Cobaugh further asked what a work study program is.

ANSWER: Miss Kemp said that it is a program in which students in the age group from sixteen to twenty work in a public agency only during an academic year and earn $1.25 an hour.

QUESTION: Mr. Cobaugh asked if there is any kind of related teaching in the program.

ANSWER: Miss Kemp said that this has been done in some schools and more schools are being encouraged to do it.

QUESTION: Mr. McCoy suggested that the needs of these slow learning children begin in the first grade level and that we should start there. He is in favor of a vocational program in the high school, but thinks we should start in the elementary school to help them.

QUESTION: Earl Ensminger asked what the qualifications are to get into these schools.

ANSWER: Miss Kemp said that each state sets up its own regulations.

There were no further questions and the meeting was adjourned.

REPORTS OF VISITS TO SCHOOLS REPUTED TO BE SERVING DISADVANTAGED PUPILS

Upper Bucks County Vocational-Technical School, Perkasie, Pennsylvania, and Lower Bucks County Vocational-Technical School, Bristol, Pennsylvania.

Very early in Project OE-66-1223 (June 16, 1966), Mr. Carl Wengert, Director of Vocational Education in Chambersburg, Pennsylvania; Mr. Gerald Cobaugh, Project Director until August, 1966; and Mr. James K. Gibboney, Superintendent, Franklin County Schools, visited the Upper and Lower Bucks County Vocational-Technical Schools, located respectively in Perkasie and Bristol, Pennsylvania.

The Upper Bucks County school is under the supervision of Mr. James Ross, Principal, and serves the northern half of the county. This school accommodates 300 students, none of whom are slow learners. The I.Q. distribution of the student body is almost exclusively between 90 and 110.

Mr. Ross has strong feelings against accepting low intelligence students. He feels that the image of a school is determined by the quality of the graduates.

Though there are as yet no slow learners included in the curriculum and no special program designed for them, Mr. Ross explained that there are plans to add facilities to the school for their sole use. In this facility the slow learner would not be strictly categorized. If he shows interest and ability in certain areas, he would be taken out of the "slow" facility and put into a regular class.

The Lower Bucks County Vocational-Technical School, under the supervision of Mr. George Shaeffer, Principal, is even stricter regarding slow learners. All slow learners are screened out. The school accommodates 1200 students.

For a more detailed account of these two schools, the reader is directed to APPENDIX B, Exhibit II, entitled "Summary of School Practices by Counties," pp. B-9 and B-10.

Cambria County Occupational Preparation School, Portage, Pennsylvania.

On July 6, 1966, Mr. Cobaugh inquired into the founding and growth of the Cambria County Occupational Preparation School, Portage, Pennsylvania. Mr. Regis Michelangelo, Educational Director of the school, provided Mr. Cobaugh with most of the information contained in this report.

Portage is located thirty miles southwest of Altoona in a now defunct coal-mining district. Though the general economic condition of the community is poor, the school district has made remarkable progress in recent years.

The idea to found an occupational preparation school in this area began nine years ago when the citizens of Portage built a new high school. The old high school plant was completely abandoned and remained vacant for six years. Three years ago, Mr. Regis Michelangelo and others along with Dr. Rudolph Matyas, now Assistant Superintendent of Schools, Bucks County, Pennsylvania, decided to provide a vocational training school for the educable, mentally retarded. After plans were drawn to locate the school in the old high school building, the vocational training period was begun for thirty-five boys, nineteen of whom were juniors. The entire philosophy upon which the school was conceived was that the training should be a practical approach to occupational areas which the students could enter directly from their school training.

With this thought in mind, the students were put to work renovating the now dilapidated former high school building. Mr. Michelangelo stated that the students could not even get in the front door because of the debris that was piled in the hallway from falling plaster, warped doors, and vandalism. He said that the school was to be "problem centered" and the first problem was to clear the debris for entrance. The students, with the aid of two industrial arts instructors, renovated the old building. Among the tasks performed were clearing away the debris; erecting suspended ceilings, partitions and panels; installing new wiring for lights and an electrical testing room; laying tile floors; painting; and plastering. Maintenance of the building is still handled by the students.

To date, there are seventy-three boys enrolled in the program of the school. The school, which provides daily bus transportation for students living as far as thirty-two miles away, is run with a full-time staff of seven (four teachers, one guidance counselor, one secretary, and one educational director). The four teachers handle the complete unit of academic and vocational subjects: two are assigned to industrial arts and two to the "academic" subjects. The latter subjects are strictly related to the occupational fields which are undertaken in the job program.

The curriculum consists of thirteen separate occupational courses, some running for one week, some for two, some for three or more. The pace of any given course is set, not by a rigid timetable, but by the ability level and individual needs of the students. Those who cannot "keep up with" certain phases of the occupational program are permitted to progress at their own speed, doing only what they can. If they are totally inept in any or all phases of the occupational program, they are placed in a building maintenance set-up whereby they learn to clean floors, walls, etc.; wash dishes in the cafeteria; and perform a myriad of other jobs associated with the maintenance field.

The grading system of this school appears to be the same as for others; however, the letters A, B, C, D, and F stand respectively for the following: A - Does work without supervision; B - Does satisfactory work with minimal supervision; C - Does satisfactory work with supervision; D - Needs constant supervision and has difficulty; F - Is uncooperative and cannot do the job. All seniors in the program are counseled at least three times per year, juniors at least once. All are encouraged to speak frankly to the guidance counselor. Naturally, the guidance counselor must operate in such a manner that the students have confidence in him.

The textbooks for the academic phase of the program are written completely or partly by the following people: Rudolph P. Matyas, Regis Michelangelo, Edward Sofish, and John Travis. These paperbound books are written at a fourth-grade level and are designed to provide a practical approach to various phases of social life: employment, citizenship, and family.

A building addition is presently being constructed by the students to provide a space of approximately fifty feet by thirty feet.

Board of Cooperative Education School District No. 1, Yorktown Heights, New York.

Continuing the procedure of inquiring into the operation of various vocational-technical schools, Mr. Cobaugh and Mr. Richard Kitzmiller, present

Project Director, visited on Tuesday, August 16, 1966, the area vocational-technical school operated by the Board of Cooperative Education Services (BOCES) District No. 1, Yorktown Heights, New York. Mr. Cobaugh and Mr. Kitzmiller spent the afternoon in conference and on guided tours with Mr. John W. Stahl, Director of BOCES Area Vocational-Technical School, and Mr. Donald Mullaney, his assistant.

Serving the whole of Westchester County and accommodating 580 students, 20 of whom are slow learners, this school provides a wide range of vocational education, including two special education classes and an additional two for the "underachiever." Among the thirteen other courses designed for regular students, one will occasionally find a slow learner being taught along with the other students.

The two courses provided for the "underachiever" and the slow learner are maintenance mechanics for boys and practical aids for girls. Although these courses are especially designed for the slow learner, any child may elect to take them.

In maintenance mechanics, boys receive specific preparation in ten areas of operation ranging from the use and application of hand tools to the operation of trade power equipment. They are taught the basic skills in carpentry, electricity, mechanics, landscaping and yard maintenance. They learn to use many power tools and all types of maintenance equipment, including mops, brooms, and window cleaning tools. Some of the power tools in this department are the wood lathe, drill press, and radial arm saw. Graduates of the course are capable of entering jobs requiring the basics of carpentry, building maintenance, machine shop, and landscaping.

In the practical aids course, girls are given five units of instruction: Personal Development, Nature of Work, Job Training, Job Units, and Individual Job Preparation. The graduates find employment as hotel-motel workers, nurses' aids, soda fountain clerks, cashiers, and waitresses.

Upon being questioned further about the program for the slow learner, Mr. Stahl explained that the percentage of time devoted to academic instruction was about the same as that received by other students and that every effort was taken to remove the danger of a stigma being placed upon the slow learner.

Mr. Stahl pointed out that students enrolled in maintenance and practical aids are permitted to work at their own pace. Instructors are hired who are especially adept at teaching the slow learner. Because the school was founded upon the principle that education must reach every student, regardless of his abilities and ambitions, the slow learner is taught rather than "pushed along." If the slow learner successfully completes his academic studies as well as his shop work, he is given a certificate of attainment. Employment opportunities are readily available to these "graduates."

York County Area Vocational-Technical School, York, Pennsylvania.

Mr. Kitzmiller, Project Director, and Dr. Michael Ciavarella, his research assistant, visited the York County Area Vocational-Technical School, York, Pennsylvania, the morning of August 31, 1966. Mr. Henry Pilker, Director of the school, and Mr. James Smith, his assistant, were consulted.

Serving an area of 45,000 people, this school now enrolls 750 students, 20% of whom are slow learners. It is estimated that 1% of the total student body have I.Q.'s of less than 85; 15-20% have I.Q.'s between 85 and 90; and the rest range between 91 and 143. The York County Vocational-Technical Program is expanding and will soon enroll approximately 1740 students.

The school provides three different programs, depending upon the ability level and desires of the individual students. The technical program, catering to students with I.Q.'s between 115 and 135, offers courses in electronics and data processing; the vocational program, catering to those with I.Q.'s between 100 and 115, offers courses in machine shop, electrical repair, and plumbing; and the operational program, catering to the slow learner with an I.Q. ranging from 80 to 95, provides courses in cleaning and pressing, welding, machine operation, auto mechanics, carpentry, printing, commercial art, and practical nursing.

Though the slow learner is handicapped by limited motivation, by his home environment, and by a record of high absenteeism on days of academic instruction, considerable progress has been made with him in the vocational-technical school. The school provides a full-time work-experience program and a guidance counselor for all of its students. The slow learner has proved very successful when placed in industry by means of the work-experience program in his senior year. In many cases, he remains on this job as a permanent employee.

According to the officials interviewed, York County gives much attention to the attitude of the faculty employed to teach this type of student. Teachers must be "down-to-earth" and must be able to relate to their students through sympathy and respect. They must treat each student equally and not chastise anyone in front of a group. They must continuously give their students confidence and a sense of security. Teachers who attempt to use the same techniques with these children that they use with the college-bound child cannot succeed.

Though the only occupational education opportunities available for the slow learner in the York County Area Vocational-Technical School are in upholstering and sawmill work, the school hopes to expand this number to include service station attendants, food services, building maintenance, warehouse laborers, auto body repair, block laying, and horticulture. In future years, the school also hopes to include more slow learners in its curriculum.

The Carrollton School, Baltimore, Maryland.

Concluding a series of five visits to schools that are providing some measure of occupational instruction to disadvantaged children, Mr. Kitzmiller and Dr. Ciavarella visited Mr. John L. Cothorn, Principal of the Carrollton School, School 183, Baltimore, Maryland, on August 31, 1966. In a letter to the Franklin County School Board, James L. Reid, Director of Education, Maryland State Department of Education, singled out this school as being outstanding for its kind in Maryland.

The Carrollton School was established in 1963 to provide unique occupational training for the low ability student who had successfully completed the ninth grade in a junior high school, but who was unable to qualify for admission to any of the other high schools (or vocational high schools) in Baltimore. The low ability student was also one who, if admitted to another high school, was unable to succeed. Prior to the establishment of the Carrollton School, most of these children were retained in the ninth grade until they dropped out of school.

The children who enter the Carrollton School are either mentally retarded, emotionally disturbed, or slow in learning. They are the potential dropouts. Though an occasional pupil may be assigned to this school with an I.Q. as high as 91, the large majority of pupils have I.Q.'s ranging between 60 and 79. They usually have low socio-economic backgrounds and are unable to cope with the regular high school's academic standards. It is required that they be sixteen years of age upon admission and that they be recommended from the ninth grade of a comprehensive junior high school, or from a junior high school with a special education curriculum.

The general objectives of this school program are to assist the low ability student to become occupationally competent within his limits; to develop in the student the proper attitudes of citizenship and workmanship; and to develop a sense of security within the student himself. Of course, the school's constant aim is future employment for all its students.

The program of studies is divided into two parts: academic or classroom studies and occupational training. Since the ability of the classes to learn may change with each succeeding year, the program of academic studies is a continuous experiment. A teacher of a given subject may have to implement new methods of teaching with each new entering class. The constant subjects provided are: the language arts, social studies, mathematics, job training, and science-health. The cultural offerings are art, music, and library.

Classroom subjects are functional and are planned in collaboration with teachers of occupational classes. The program of occupational training is designed to meet the needs of Service Occupations in the Baltimore community. The students are given specific training in some shop areas while the other shop offerings serve to give training in skills and formative habits, such as reporting to the job every workday and on time. Students are permitted freedom to move from one course to another in order to accommodate their interests and abilities.

The emphasis is placed on instruction and training in the service occupations that do not require high professional skill, but which demand an aptitude for the job and a required amount of training to perform.

Specific training is provided in the following service occupation areas: custodian, duplication, family aids, food service, home maintenance, lawn seeding, flower arrangement, valet services, and retailing. Other offerings include painting and furniture refinishing, shoe repairing, and small appliance repair.

As for extra-curricular activities, students may participate in basketball, baseball, swimming, student council, dramatics, choir (for both boys and girls), and the school newspaper.

Educational techniques that have proved most successful with these pupils are audio-visual aids, small groups (15-20), individual attention, patience, understanding and sympathy. Mr. Cothorn believes that this type of student learns best through visual aids.

Job placement at Carrollton School 183 is still in the developmental stage. The placement program began as a "work-experience" venture. The students were placed in areas of employment to gain the experience of work, but on a non-paying basis. Such places include the public schools offering clerical aide, lawn and garden care, and custodial services; the Tuberculosis Association of Maryland offering clerical aide; and the City (Baltimore) Bureau of Vital Statistics offering clerical aide.

The Placement Program extended to the "work study" area whereby second-year students were placed on jobs at an hourly or weekly rate of pay. Places cooperating were department stores, hospitals, private residences, and small businesses. Those students who demonstrated that they were potentially good material were retained as permanent employees. Approximately 50% of the pupils remain to graduate. Of these, 6.5% obtain permanent job placement by graduation night.

THE FRANKLIN COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL

Attendance Area: All of Franklin County, Pennsylvania, and Shippensburg Area School District, Cumberland County, Pennsylvania

Projected Enrollment: 920 (To house 460).

Philosophy: We believe that vocational-technical education should be made available to all secondary school pupils, out-of-school youth, and adults with the ability and interest to profit from the instruction.

Every individual, regardless of his station in life, must be prepared eventually to provide for his social, economic, and cultural needs. Furthermore, he must be ready to live and associate with other people in a highly complex society in which he functions as a sharing and contributing citizen.

We believe further that eventually all youth should be prepared to earn a living, and that, in varying degrees, all are sufficiently talented academically and/or vocationally to achieve this end. Failure to develop the talents of youth, particularly for occupational competence, produces high school graduates who seek employment with inadequate preparation--graduates who may become the unemployed adults of tomorrow.

It is our contention that vocational-technical education should be provided on the secondary school level to challenge and motivate pupils, to develop the interests and abilities of capable pupils, to provide job preparation for those not anticipating higher education, and to provide a background for advanced post-high school technical education.

We believe the vocational-technical curriculum should provide for intensive preparation toward general and specific job objectives in order to develop standards of performance commensurate with the requirements of particular fields of work. Attention will be directed to providing an academic education; to developing the ability to think critically; and to generate sound character, responsible citizenship, and wholesome mental and physical health.

The vocational-technical school program will be sufficiently comprehensive to provide laboratory courses for girls and boys of varying interests and abilities. This can be accomplished by offering courses on three instructional levels: technical, skilled trade, and semi-skilled or occupational. These courses should develop varying degrees of manipulative skills, as well as variable levels of proficiency in mathematics, science, theory and technology as applied to the job situations.

All pupils should evidence the interest, aptitude, and ability to profit from the instructional program; such evidence will be a condition of continuance in the curriculum.

Provision will be made for adults and out-of-school youth who may want instruction preparatory to entering an occupation, as well as for those already employed who may be striving to increase their knowledge of the job and for those who are being retrained or upgraded.

We believe a marked need exists to broaden at the secondary level the curriculum in the field of vocational-technical education. We further believe that such a program can best be organized, planned and developed cooperatively by several school districts whose combined resources and enrollment present a broad-based and adequate foundation of support.

The principles here expounded can be made effective with the cooperation of industry, business, and the participating schools.

Program Objectives:

1. To provide a broad program in operative, skilled, and technical levels of instruction for secondary pupils, out-of-school youth, and adults of this attendance area.
2. To offer an academic program sufficiently comprehensive to provide for all levels of instruction for boys and girls.
3. To provide a program designed to educate the whole pupil and make him or her a good citizen.
4. To offer instruction that conforms with the accepted practices of business and industry.
5. To recognize the physical, emotional, intellectual, and individual differences among pupils and provide the appropriate training.
6. To develop attitudes and work habits.

J. ACADEMIC-RELATED-GENERAL EDUCATION CURRICULUM

Type Curriculum: Operational Period Per Day 7 Period Length 50

Days in School Term: 180 Related Subjects Plan 3-week about

(Prepare separate sheet for each curriculum track)

SUBJECT AREA	GRADE 10 NUMBER SECTIONS-			GRADE 11 NUMBER SECTIONS-			GRADE 12 NUMBER SECTIONS-		
	Course Title	Pds.	Cr.	Course Title	Pds.	Cr.	Course Title	Pds.	Cr.
English	Am. Lit. & Grammar	8	.8	Eng. Lit. & Grammar	8	.8	World Lit. & Grammar	8	.8
Social. Studies	Am. Hist.	5	.5	Am. Hist.	5	.5	W. Culture	5	.5
Mathematics	General Math	10	1						
Science				Biology	10	1			
Drafting	B. P. Reading	2	.2	B. P. Reading & Free Hand Sketch.	1	.1	B. P. Reading & Drafting	2	.2
Health								3	.6
Physical Ed.		2	.2		2	.2		2	.2
Study		6			7			13	
	Public Speaking	2	.2	Public Speaking	2	.2	Public Speaking	2	.2
Shop-Laboratory		35	2		35	2		35	2
TOTAL		70	4.9		70	4.8		70	4.5

List Shop-Laboratory courses identified with this type curriculum:	Remarks:
Machine Operator - - - - - - - - - - - - - - -	taught in Machine Trades shop area
Welding Building Construction - - - - - - - - - - - -	Phase which shows most adaptability
Textile Fabrication & Design - - - - - - - -	certain aspects

A REVIEW OF THE OCCUPATIONAL SURVEY
conducted for the
FRANKLIN COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL

During December, 1965, and January, 1966, Mr. Carl Wengert, Director of the Franklin County Area Vocational-Technical School, conducted a survey of occupations in the employment area in which the Franklin County Area Vocational-Technical School will be located.

This survey was intended to reveal employment information necessary to the planning of a vocational-technical school to serve the attendance area of Franklin County, Pennsylvania, and the Shippensburg Area School District in Cumberland County, Pennsylvania. Immediate and projected employment needs provided a basis for deciding upon course offerings and related shops to be included in the school.

Questionnaires (See Exhibit I) were mailed in early December, 1965, to all employers of the school attendance area who were making contributions to Unemployment Compensation through the Pennsylvania Department of Labor and Industry. Additional questionnaires were sent to Fairchild Hiller Corporation, Mack Trucks, Inc., and the Pangborn Corporation (all of Hagerstown, Maryland) because many workers from the Franklin County Vocational-Technical School attendance area are employed by these Hagerstown industries.

In all, 1658 questionnaires were mailed.

With the questionnaires, each employer was furnished a letter of explanation and Dictionary of Occupational Titles code numbers from one hundred (100) common occupational titles (Exhibits **II & III**, respectively). The employer was requested to indicate the job titles used and designate the number of employees by sex presently employed for each job title. He was asked to furnish the number (by sex) presently needed to fill vacant positions. He was also asked to estimate his needs (for replacements by sex and for additions by sex) for 1966-68 and for 1969-71.

Four hundred-fourteen (414) responses were received, representing 25% of those requested. Additional information was obtained by personal visit to

Acme Markets, A & P Food Store, and Sears, Roebuck and Company in Chambersburg, Pennsylvania. However, Mr. Wengert estimates that the data obtained represents approximately 80% of the labor market.

Mr. Wengert tabulated the returns using the seventy-five (75) most common occupational titles (See Exhibit IV). Of the total returns, forty-six (46) were not included in this tabulation because the jobs could not be properly identified, the number employed in the job classification was too few, or the job classification was not in keeping with the traditional vocational-technical school offerings.

The tabulation of the seventy-five (75) most common occupations was presented to the Professional Advisory Committee of the Franklin County Area Vocational-Technical School on January 14, 1966. This committee reviewed the survey and recommended the inclusion of twenty-two (22) courses in the vocational-technical school (See Exhibit V). Landscaping and Horticulture was included because of need uncovered by a recent agricultural survey in Adams, Cumberland, Franklin and Fulton Counties (See Exhibit VI & VII).

The foregoing recommendations were presented to the Vocational-Technical Board, the General Advisory Committee and the Department of Public Instruction, Commonwealth of Pennsylvania. By consultation and conference, the following course titles were accepted and approved by the Franklin County Area Vocational-Technical School Board and the Department of Public Instruction, Commonwealth of Pennsylvania:

Automobile Mechanics
Automobile Technology
Auto Body Repair
Machinists
Machine Tool Operators
Plumbing, Heating, Pipefitting and Sheet Metal
Welding
Building Construction
Electrical Construction
Electronics
Data Processing
Printing
Cosmetology
Health Assistant
Marketing Technology
Mechanical Drafting and Design Technology
Foods Preparation and Service
Textile Fabrication and Design
Landscaping and Horticulture
Farm Machinery Sales and Service
Manufacturing and Materials Control Technology
Practical Nursing (Adult)

Exhibit - I

OCCUPATIONAL SURVEY

NAME OF BUSINESS ____________________

BUSINESS ADDRESS ____________________

CLASSIFICATION (Product or Service) ____________________

GENERAL ADVISORY COMMITTEE
Franklin County Area Vocational-Technical School
Court House Annex, Chambersburg, Pennsylvania

Please return THIS SHEET ONLY in enclosed envelope

DATE ____________________

OCCUPATIONAL JOB TITLE	CLASSIFICATION *D.O.T. CODE IF KNOWN	PRESENT EMPLOYMENT		NUMBER OF TRAINED WORKERS											
				PRESENT NEEDS		1966 - 1968				1960 - 1971					
						REPLACE-MENTS		ADDI-TIONS		REPLACE-MENTS		ADDI-TIONS			
		MALE	FEMALE	M	F	M	F	M	F	M	F	M	F		
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															
13.															
14.															
15.															
16.															
17.															
18.															
19.															
20.															

*D.O.T. - Dictionary of Occupational Titles

COMMENTS:

SURVEY DATA compiled by ____________________ Title ____________________ Phone Number ____________________

Exhibit - II

FRANKLIN COUNTY AREA VOCATIONAL—TECHNICAL SCHOOL
GENERAL ADVISORY COMMITTEE
FRANKLIN COUNTY COURT HOUSE ANNEX
CHAMBERSBURG, PA. 17201

J. T. JOHNSON, CHAIRMAN
PHONE 264-6144

October 20, 1965

Dear Employer:

In planning for the Area Vocational-Technical School, you can play an important role in helping to establish a curriculum which will actually train and qualify its graduates in occupations where they are needed.

With the current demand for qualified employees along with expected needs in the future, we need the cooperation of every employer in Franklin County and the Shippensburg Area to advise us on the enclosed form:

(1) OCCUPATIONAL JOB TITLES of jobs employed in your business
Example: Tool & Diemakers, Machinist, Inspector; or Clerk-Sales, Maintenance millwright, electrician, plumber.
Be sure to list all titles of jobs--skilled, semi-skilled, technical, etc.

(2) PRESENT EMPLOYMENT ... show number of employees, male and female, presently or normally employed in each of the occupations listed.

(3) PRESENT NEEDS ... if vacancies currently exist in any listed occupation, indicate in this column.

(4) REPLACEMENTS ... if you have a compulsory retirement program or otherwise expect to lose certain employees within the next five years, let us have your best estimate of replacements that will be needed.

(5) ADDITIONS ... If you now know of plans for expansion sometime within the next five years which will require the addition of certain personnel, let us have your best estimate of additions that may be required under each job title.

CLASSIFICATION of your business ... be sure it is descriptive of your business such as Manufacturer--Chains; Distributors--Groceries; Dealer--Automobiles.

CONFIDENTIAL ... information submitted in the attached form will be kept confidential as far as its identity with the name of your particular business.

FOR ADDITIONAL INFORMATION contact G. Carl Wengert, Chambersburg Area Senior High School, telephone 264-6144.

THANKS ... we appreciate your cooperation in completing our occupational survey.

Very truly yours,

J. T. Johnson.

J. T. Johnson, Chairman
General Advisory Committee

Exhibit III

List of Occupational Titles

The 100 occupational titles listed contains the 24 most frequent job openings among skilled and semi-skilled workers in Franklin County during period January 1-June 30, 1964. They are identified by an asterisk. Additional titles were selected from the Dictionary of Occupational Titles, U. S. Department of Labor, Government County Office, Wash. 1949. The list was developed for information and guidance. Survey reporters will need to refer to the DOT for those occupations not in this list.

LIST OF OCCUPATIONAL TITLES

The 100 occupational titles listed contains the 24 most frequent job openings among skilled and semi-skilled workers in Franklin County during period January 1-June 30, 1964. They are identified by an asterisk. Additional titles were selected from the Dictionary of Occupational Titles, U.S. Department of Labor, Government County Office, Wash. 1949. The list was developed for information and guidance. Survey reporters will need to refer to the DOT for those occupations not in this list.

1. Display Man - 0-43.30
2. Manager Display - 0-43.35
3. Process Artist - 0-44.07
4. Poster Artist - 0-44.11
5. Letterer - 0-44.15
6. Sign Writer, Hand - 0-44.13
7. Draftsman, Construction - 0-48.08*
8. Draftsman, Architectural - 0-48.04*
9. Draftsman, Mechanical - 0-48.18*
10. Medical Technician - 0-50.01
11. Dental Technician - 0-50.06
12. Stock Clerk - 1-38.01
13. Sales Clerk - 1-70.10
14. Sales Person, General - 1-75.71
15. Salesman, General - 1-80.01
16. Chef - 2-26.31
17. Cook - 2-26.32
18. Cook, Short Order - 2-26.33
19. Waiter, Informal - 2-27.11
20. Waitress - 2-27.12
21. Cook Helper - 2-29.01
22. Sandwich Man - 2-29.13
23. Barber - 2-32.01
24. Hairdresser - 2-32.11
25. Baker - 4-01.100
26. Cabinetmaker - 4-32.100*
27. Router Operator - 4-33.411
28. Planer Operator - 4-33.461
29. Universal Woodmaking - 4-33.311* Machine Operator
30. Upholsterer - 4-35.720
31. Compositor (Printing) - 4-44.010
32. Linotype Operator - 4-44.110
33. Monotype Keyboard Operator - 4-44.120
34. Photo Lithographer - 4-46.200
35. Photo Engraver - 4-47.100
36. Cylinder Press Man - 4-48.010
37. Platen Press Man - 4-48.020
38. Tire Repairer - 4-57.212
39. Tire Inspector - 4-57.213
40. Machinist - 4-75.010*
41. Tool and Die Maker - 4-75.040*
42. Engine Lathe Operator - 4-78.011*
43. Turret-Lathe Operator - 4-78.021*
44. Milling Machine Operator - 4-78.031*
45. Horizontal Boring - 4-78.042* Machine Operator
46. Vertical Boring Mill Operator - 4-78.044*
47. Shaper Operator - 4-78.061*
48. Machine Operator, General - 6-33.370*
49. Planer Operator - 4-78.071
50. Sheet Metal Worker - 4-80.010*
51. Sheet Metal Lay-out - 4-80.020* Man
52. Cylindrical-Grinder - 4-78-511* Operator
53. Molder - 4-81.010
54. Coremaker - 4-82.010
55. Welder, Arc - 4-85.020
56. Welder, Acetylene - 4-85.030
57. Welder, Combination - 4-85.040*
58. Welder, Butt Tube - 4-88.341
59. Electrician - 4-97.010
60. Electrician, Machine Shop-4-97.410
61. Electrical Repairman - 4-97.420
62. Electrician, Powerhouse - 4-97.510
63. Plastic Molder - 5-10.014
64. Painter, Furniture - 5-16.720
65. Painter, Automobile - 5-16.910
66. Patternmaker, Metal - 5-17.010
67. Patternmaker, Wood - 5-17.020
68. Bricklayer - 5-24.010
69. Stonemason - 5-24.210
70. Tilesetter - 5-24.410
71. Carpenter, Maintenance - 5-25.110*
72. Carpenter, Finish - 5-25.150
73. Painter, Construction - 5-27.010
74. Pipe Fitter - 5-30.010
75. Plumber - 5-30.210
76. Butcher, Meat - 5-50.100
77. Automobile Mechanic - 5-81.010*
78. Automobile Body - 5-81.510* Repairman, Metal
79. Tool Grinder Operator - 5-84.110
80. Chair Upholsterer - 6-35.110
81. Tester, Electronics - 4-98.010
82. Electro-Mach. Insp. - 4-98.012
83. Electronic Equip. Ass. - 4-98.050
84. Printed Circuit Tech. - 4-98.200
85. Trouble Shooter, Elec. - 5-83.413
86. Transistor Assembler - 6-98.012
87. Condenser Winder - 6-98.070
88. Transformer Ass. Elect.- 6-98.240
89. Multilith Op. (Mint) - 4-48.055
90. Diamond Boring Mach Op.- 4-78.047
91. Groove Cutting Mach Op.- 4-78.165
92. Pattrn. Mkr. Cast Metal- 5-17.035
93. Auto-Mech All-around - 5-81.011
94. Pressure Welder - 6-85.092
95. Unionmelt Op., Auto. - 6-85.090
96. Job Setter (Mach. Shop)- 4-75.16
97. Screw Maker, Automatic - 4-78.031
98. Screw Maker, Hand Lathe- 4-78.14
99. Tool Designer - 0-48.41*
100. Floor Assembler - 6-78.632*

Exhibit IV

SUMMARY OF OCCUPATIONAL SURVEY

OCCUPATIONAL JOB TITLE	RANK	PRESENT EMPLOYMENT		NUMBER OF TRAINED WORKERS									
				PRESENT NEEDS		1966-68				1969-71			
						REPLACEMENTS		ADDITIONS		REPLACEMENTS		ADDITIONS	
		M	F	M	F	M	F	M	F	M	F	M	F
1. Auto Body Repairers	20	142		18		18		19		31		11	
2. Auto Mechanics & Helpers	2	828		69		71		40		97		47	
3. Automotive Equipment Operators	18	151				15				15			
4. Bricklayers, Masons, Tilesetters	38	43		19		11		6		1			
5. Cabinet Makers	46	27		24		6		19		2			
6. Carpenters	7	237		44		26		28		24		3	
7. Draftsman-Const. & Arch.	21	123		22		4		23		3		19	
8. Draftsman-Mechanical	9	217	11	18		5		16		3		15	
9. Millwrights	45	32		2		1				1			
10. Painters	44	35		4		3		2					
11. Painter-Constr. & Maint.	30	66				6		6		9		3	
12. Plumber & Pipe Fitters	28	92		24		15		18		10		25	
13. Electricians & Helpers	13	182	1	57		16		29		16		29	
14. Electrical Appliance Repairers	56	15		13		1				2		1	
15. Bakers	54	17			1	2			1				
16. Butchers	47	24		3		4		5		3		1	
17. Cooks and Helpers	22	35	87	11	20	10	16		5	44	8		1
18. Waitresses & Informal Waiters	23	13	109	8	13	3	54	1			178		
19. Coremakers	29	67		6		4				6		1	
20. Heat Treaters	59	12											
21. Cupola (Foundry)	60	12				1		1		1			
22. Machinists	1	2443	14	144		58		185		49		171	
23. Mechanics-Maint. & Serv. Industry	19	143		6		8		10		7		5	
24. Molders	26	108		7		6				13		1	
25. Patternmakers	39	40		12				19				19	

SUMMARY OF OCCUPATIONAL SURVEY

OCCUPATIONAL JOB TITLE	RANK	PRESENT EMPLOYMENT		NUMBER OF TRAINED WORKERS									
				PRESENT NEEDS		1966-68				1969-71			
						REPLACEMENTS		ADDITIONS		REPLACEMENTS		ADDITIONS	
		M	F	M	F	M	F	M	F	M	F	M	F
26. Sheet Metal Workers & Layout	8	234		25		11		27		27		11	
27. Mechanical Equip. Processing	31	64		4		6		6		7			
28. Guided Missile Mech. Repairers	34	55				6		57		5			
29. Warehousing	3	375				35		57		5			
30. Shipping Workers & Clerks	14	168	8	1		15	2	3		16	3		
31. Assembly Packers	10		200										
32. Arc Welders	6	268		26		37		81		40		56	
33. Combination Welders	24	117		37		14		32		7		29	
34. Acetylene Cutter Operators	62	10		1		3		4		3		5	
35. Firecontrol Instr. Repairers	37	45		10		6				7			
36. Cable & Harness Repairers	55	15	1			2				1			
37. Sewing Machine Operators	12		186		12		1		20		1		
38. Seamstresses & Dressmakers	64		9										
39. Knit Goods Mfg. Occupations	53		18				3				1		
40. Loom Fixers	50	21											
41. Weavers	40	21	19										
42. Oil Burner Installers & Service	66	6		4		2							
43. Automatic Data Processing	11	136	73	20	3	42	3	83		1	3		
44. Bookkeepers & Accountants	25	28	81	4	3		4		4	1	2		7
45. Cashiers, Tellers & Checkers	35	30	25	3	2	10	2	3	1	4	1	2	1
46. Clerks-typists -Sec.-Recepts.	4	113	239	7	12	8	6	1	5	1	7		
47. Managers-General	51	14	7					1				1	
48. Managers-Office	49	18	5	1	1	2	1	1	1	2	1	2	1
49. Office Machine Operators	32	39	25			4				3	1		1
50. Office Machine Repairers	70	3		1		1		2					

SUMMARY OF OCCUPATIONAL SURVEY

OCCUPATIONAL JOB TITLE	RANK	PRESENT EMPLOY-MENT		PRESENT NEEDS		NUMBER OF TRAINED WORKERS							
						1966-68				1969-71			
						REPLACE-MENTS		ADDI-TIONS		REPLACE-MENTS		ADDI-TIONS	
		M	F	M	F	M	F	M	F	M	F	M	F
51. Illustrators	65	8	1			1				1			
52. Linotype-Compositors	43	32	5	17		5		6		6		8	
53. Photo Lithographers	52	20								1			
54. Photo Engravers	73	1	1										
55. Cylinder Pressmen	27	96	4	6		1					2		
56. Radio-T.V. Engineers	68	4		2		1		1					
57. Electronics	41	39		12				18				18	
58. Trouble Shooters-Ref., Radio, TV	36	51	2	9		3	1	18		6		12	
59. Electronic Equip. Inspectors	48	23				2		8		3			
60. Electronic Equip. Installer & Repr.	16	160		10		20		95		30			
61. Transister Assembler	75	1											
62. Display Man	69	3		1				1				1	
63. Manager-Sales	58	11	1	4		1						1	
64. Sales Clerks	15	77	93	10	6	5	6	12	8	5	2	13	9
65. Salesmen-General	5	240	31	50	9	36	6	35	2	16	1	31	3
66. Stock Clerks	17	149	6	22		16		19	1	13		20	1
67. Barber	67	5											
68. Hairdressers	71		3										
69. Chemist	74	1											
70. Dental Technicians	57	8	6		6	2	1	10	1	2	1	4	
71. Medical Technicians	72	2											
72. Nurses' Aids	42		38		10		15		10		15		
73. Lab Technicians	63	1	9		4		7		5		6		5
74. X-Ray Technicians	73		1		1								
75. Dry Clean. Establish. Workers	37	6	51		5								
TOTALS		7822	1369	798	109	591	128	1008	64	549	234	565	29

Exhibit V

RECOMMENDED COURSES FOR CONSIDERATION AND DELIBERATION BY THE GENERAL ADVISORY COMMITTEE FOR THE FRANKLIN COUNTY VOCATIONAL-TECHNICAL SCHOOL CURRICULUM

1. Machinists (to include heat treaters)
2. Auto Mechanics
3. Distributive Education (to include warehousing, general salesmen, assembly packers, shipping workers and clerks, sales clerks, stock clerks, cashiers, tellers, checkers, office managers, and display men)
4. Welding (to include arc, combination, and acetylene cutter operators)
5. Building Construction and Cabinet Making (to include painters-construction and maintenance, general painters, and cabinet makers)
6. Sheet Metal and Air Conditioning
7. Drafting (to include mechanical, construction, and architectural)
8. Automatic Data Processing
9. Textile Trades (to include sewing machine operators, knit goods mfg. occupations, seamstresses and dressmakers, and dry cleaning establishment workers)
10. Electricians (to include electrical appliance repairmen)
11. Electronics (to include trouble shooters for radio and tv, electronic equipment installers and repairmen, electronic equipment inspectors)
12. Mechanical Maintenance and Service (to include loom fixers, millwrights, and oil burner installers and servicemen)
13. Auto Body Repair
14. Foods Preparation and Service (to include cooks and helpers, waitresses and waiters, butchers, and bakers)
15. Graphic Arts (to include cylinder pressmen, linotype-compositors, photo lithographers, photo engravers, and illustrators)
16. Trowel Trades (to include bricklayers, masons and tilesetters)
17. Instrument Repair (to include office machine repairmen)
18. Cosmetology (to include hairdressers)
19. Practical Nursing (post graduate course)
20. Landscaping and Horticulture
21. Heating, Plumbing, and Pipefitting
22. Medical and Dental Assistants

Exhibit VI

Estimated Number of Employees Needing Agricultural Competencies, To Be Hired During the Next Five Years, In Agricultural Businesses and Services, by Occupational Family in Adams, Cumberland, Franklin and Fulton Counties, 1964

Occupational Family	Adams	Cumberland	Franklin	Fulton	Total
Farm Machinery Sales and Service	24	24	34	8	90
Farm Supplies and Equipment	48	104	52	20	224
Livestock and Poultry Ind.	20	48	52	28	148
Crops, Forestry and Soil Conservation	54	56	28	20	158
Ornamental Horticulture	140	28	84	8	260
Wildlife and Recreation	0	0	2	0	2
Farm Service	16	2	6	4	28
Agriculture Service	0	4	0	0	4
Totals	302	266	258	88	914

Exhibit VII

Job Opportunities in Agriculture in Adams, Cumberland, Franklin, and Fulton Counties During the Next Five Years Listed in Order of Importance by Occupational Family, 1964

Production Agriculture	693
Ornamental Horticulture	260
Farm Supplies and Equipment	224
Crops, Forestry and Soil Conservation	158
Livestock and Poultry Industry	148
Farm Machinery Sales and Service	90
Farm Service	28
Agriculture Service	4
Wildlife and Recreation	2

SUMMARY OF THE MEETING OF GUIDANCE COUNSELORS
FRANKLIN COUNTY VOCATIONAL-TECHNICAL SCHOOL ATTENDANCE AREA
November 23, 1966

A meeting of guidance counselors of the Franklin County Vocational-Technical School attendance area was held on November 23, 1966, at Conrad's Diner in Chambersburg, Pennsylvania. The school districts invited to send representatives were Chambersburg, Greencastle-Antrim, Waynesboro, Tuscarora, Fannett-Metal, and Shippensburg. Those in attendance included Miss Margaretta Williams of Greencastle-Antrim, Mr. Kenton Broyles of Waynesboro, Dr. David Duncan of Shippensburg, and Mr. Ralph Allen (arrived 11:45 A.M.) of Tuscarora. Also present were Mr. Carl Wengert, director of the Franklin County Area Vocational-Technical School, Dr. Michael Ciavarella, research assistant, Mr. Richard Kitzmiller, director of the project, and Mrs. Doris Naugle, secretary for the project. The purpose of the meeting was to discuss problems of the slow learner in relation to the vocational-technical school from the guidance counselor's point of view.

The meeting began at 10:00 A.M. with introductions by Mr. Richard Kitzmiller. A packet of materials including agenda, project summary and vocational-technical school summary was given to each of the guidance counselors.

Background information on the federal project was presented by Dr. Ciavarella. He described the slow learner as being that person between the special education student and the average student. He referred to this area of education as a "no man's land" since so little has been done thus far for the slow learner. He indicated that the big problem is to teach persons in this category a salable skill so they can make their own way in life.

Mr. Carl Wengert then described the vocational-technical school as it has been planned. Three levels of skill according to the ability of the students will be taught. (This is a regulation set up by the state government.) However, not all courses will be three year courses. The courses must be tailored to fit the needs of the student. He stated that getting good teachers for the vocational-technical school will be a major problem.

Mr. Kitzmiller explained the relationship of the slow learner project to the Franklin County Area Vocational-Technical School. They are completely separate projects, but part of the slow learner project is to examine the feasibility of combining them in such a way as to provide vocational education for the slow learner in the vocational-technical school. He mentioned that approximately twenty per cent of school children fit in the slow learner category. Although most schools have academic, business, vocational-agricultural and/or general curricula, very few serve the slow learner specifically. This is a relatively new idea in education. Many of the vocational-technical schools are reluctant to admit students who have an I.Q. of less than 105.

A definition of the slow learner which the project is using was distributed to each counselor by Mr. Kitzmiller and then discussed. Although the group expressed a dislike for using the I.Q. to brand a child, it was stated that some specific identification was necessary and that the I.Q. was a good starting place to pick out a slow learner (The I.Q. range used in this study is 75-89). It was pointed out that other criteria are used in identifying slow learners. For example, a student with an I.Q. higher than 89 and with a poor record may be considered a slow learner while a student with a low I.Q. and a good record often may not be considered a slow learner.

Questions relating to present and future problems of slow learners were then distributed and discussed. Slow learners do not measure up to average students when placed in the same classes. They do adjust and participate much the same as other students, but they are slower to grasp abstractions. Often the slow learner will try courses above his ability level. According to one counselor, there are fewer problems where ability grouping is used. The attitude of the teacher often affects a slow learner's progress. A teacher should accept the student for what he is and help him on that level. Graduation standards were included in the discussion. The opinion was voiced that the standards should be the same for all students, but that individual courses should be made simpler for the slow learners. Also, if the slow learners complete these standards, they should get a diploma. Otherwise, a certificate of attendance should be issued. A specific diploma stating exactly what a student can do was another idea expressed. The reasoning given for this belief was that a diploma in itself does not tell an employer anything. In one question, the counselors were asked to react to Nos. 4 and 5 of HIGHLIGHTS OF THE NATIONAL SEMINAR IN VOCATIONAL GUIDANCE, which stated that the needs of the child must determine educational progress rather than the reverse, and that guidance without an array of vocational and educational opportunities is meaningless. All counselors present agreed with these two ideas. The group felt that the attributes needed by a teacher of slow learning children should include awareness of different interests, rapport with industry, industrial knowledge, some psychological knowledge and genuine interest in having children learn something.

The group agreed that the biggest problem for the guidance counselors concerning the relationship of the vocational-technical school to the slow learners and, in fact, to all students, is that of meeting quotas. All participating schools are told how many students they may send to the vocational-technical school. One representative stated that his school had approximately 320 students interested in attending the vocational-technical school and was given a quota of 117. The addition of slow learners to the interested list will increase the problem of screening and deciding who can participate in the vocational-technical program. Regardless, the guidance counselors feel that all children who need this education should have it, even if it means expansion. The school should be created to provide educational opportunities for all children, not just for any one ability level.

Vocational-technical school course descriptions were distributed. Work materials were given to the counselors to complete on their own time. These included a questionnaire on courses of the vocational-technical school in relation to the slow learner and a survey to be made of slow learners in the tenth grade of the participating schools.

The meeting adjourned at 1:30 P.M.

APPENDIX I

SUMMARY OF THE MEETING OF EMPLOYMENT COUNSELORS

EMPLOYMENT AREA - PROJECT 66-1223

November 28, 1966

A meeting of employment counselors was held on November 28, 1966, at the Youth Opportunity Center, 99 South Cameron Street, Harrisburg, Pennsylvania. The counselors present were Mrs. Melva H. Calaman from the Harrisburg office, Mr. Charles Leidig from the Bureau of Employment Security, Chambersburg, Pennsylvania, and Mrs. Anna Rodgers from the Youth Opportunity Center, York, Pennsylvania. Also present were Mr. Carl Wengert, director of the Franklin County Area Vocational-Technical School, Dr. Michael A. Ciavarella, research assistant, and Mr. Richard L. Kitzmiller, director of the federal project.

Background information was presented. Dr. Ciavarella talked about the project and what its purposes are in helping the slow learner. Mr. Wengert gave information on the set-up of the Franklin County Area Vocational-Technical School. Mr. Kitzmiller went over the relationship of the project to the vocational-technical school, explaining that although they are separate ideas, part of the project is to determine whether the vocational-technical school can accommodate the slow learner.

Mr. Kitzmiller reviewed the definition for slow learner being used by this project.

He and Mr. Wengert then presented employment data obtained from the 1960 census and the Franklin County Vocational-Technical School Job Study. It was noted that the census enumeration of 1960 recorded 33,011 employed persons, whereas the Franklin County Vocational-Technical School Study obtained information on 9,191. Mr. Wengert explained that: (1) very few service workers returned questionnaires; (2) questionnaires were not sent to any employer such as a store with headquarters outside of Franklin County, a school, hospital, or college because those employers are not on the Franklin County list of contributors to Unemployment Compensation; and (3) many employers told him that they misinterpreted the intent of the questionnaire and thus listed only those occupations appearing on the list of 100 DOT numbers supplied with the questionnaire.

It was explained that the purpose of this meeting was to find out where slow learners fit in the job market and what type of training would help them prepare for such employment.

The employment counselors were then asked to tell of places they had found employment for slow learners. Among those places listed were various floor and standing occupations in the garment industry (Stanley Company, Chambersburg), strap boys and installation helpers (Stanley Company, Chambersburg), auto mechanics (York), tapers and sanders for auto body repair (West Shore), operative sheet metal workers, auto upholstering (Shoemaker's Auto Upholstry, Chambersburg), nurses' aids and laboratory helpers. The group felt additional jobs could be found for people trained in specific areas of automobile care and repair (pumping gas, greasing cars, balancing tires, tune-up, recapping and retreading tires). Although many jobs requiring planning and high level skills such as machinist and sheet metal lay-out man may be beyond slow learners, they often can be trained to operate specific machine tools or to be helpers in the plumbing and heating trade (for example, repair of spouting and ducts), electrical installation and similar skilled jobs where assistants are needed.

Areas of unmet needs in employment mentioned by the group included openings for operative sheet metal workers, nurses' aids, department and clothing store seamstresses and tailors, fork-lift operators and sales personnel.

Although cosmetology and barbering are controlled by licensing, they were not completely ruled out for the slow learner. Opportunities in food processing were cited as well as opportunities in the operation of various automotive equipment ranging from trucks through high-lifts to heavy construction equipment.

The counselors observed that present public school education often fails to meet the needs and interests of the slow learner who sometimes becomes a dropout. Shop programs in some schools become dumping grounds for undesirables; in other schools, training is provided but it sometimes becomes such a smattering of training in various areas that the individual emerges with no real skill. On the other hand, we have schools with programs providing good instruction in specific areas for the slow learner.

Among the problems relating to placement of slow learners is the slow learners' difficulty in reading instructions, their difficulty in understanding abstract concepts and their dependence upon someone else to plan for them (For example, they need the lay-out man in the sheet metal industry).

The group felt an adapted reading program suited to the needs of these individuals and related to their other courses should be provided in the new vocational-technical school. Additional work in math (i.e. making change) and English geared to the level of the slow learner and related to practical use should also be included.

While decisions on machinery to be used in the various courses would be left up to the craft committees made up of industrial representatives, some training on specific types of machines might prove valuable (The use of a fork-lift, for example). Though the cost of large machinery might be prohibitive in many cases, perhaps a set-up similar to the Work Experience Program could be employed in which the student would spend part time on the job and part time in the classroom receiving related instruction.

Driver training should be a requirement for some of the courses having to do with the operation of automotive equipment.

A distributive sales course was also recommended as being of value to many slow learners.

In planning a program for slow learners, it was suggested that their strengths as well as their weaknesses be kept in mind. Pleasant personalities, a genuine liking for people, manual dexterity and spatial relations were cited as among the qualities many slow learners possess in generous amounts.

During the meeting, Mr. Kitzmiller gave each counselor a questionnaire on occupations with instructions and the request to complete and return to him.

The conference adjourned at 12:15 P.M.

APPENDIX J

SUMMARY OF THE RESPONSES OF EIGHT EDUCATORS USING THE DOT "LEVEL OF COMPLEXITY" SCALE TO IDENTIFY THE SLOW LEARNER'S JOB PERFORMANCE LEVEL

DATA

0 Synthesizing
1 Coordinating
2 Analyzing (2)
——▷ 3 Compiling (1)
4 Computing (5)
* 5 Copying
6 Comparing
7 No significant relationship

PEOPLE

0 Mentoring
1 Negotiating
2 Instructing
3 Supervising
4 Diverting (3)
——▷ 5 Persuading (4)
* 6 Speaking-Signaling (1)
7 Serving
8 No significant relationship

THINGS

0 Setting-Up
1 Precision Working (2)
——▷ 2 Operating-Controlling (4)
* 3 Driving-Operating
4 Manipulating (2)
5 Tending
6 Feeding-Offbearing
7 Handling
8 No significant relationship

* Group median
# Top of range
Number in parenthesis indicates the number of respondents indicating this as the highest level of complexity at which the slow learner can function.

APPENDIX K
Exhibit I

QUESTIONNAIRE AND RATING SCALE

November, 1966

ACCOMMODATING THE SLOW LEARNER
in the
FRANKLIN COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL

Dear Respondent:

This instrument is designed to obtain your expert opinion on several items related to a vocational education program for the slow learner in relationship to the Franklin County Area Vocational-Technical School.

Your cooperation in responding to the questions herein is appreciated.

Cordially yours,

Richard L. Kitzmiller

I. Information describing the Respondent

☐ Vocational Teacher ☐ Industrial Arts Teacher ☐ Other Teacher

☐ Guidance Counselor ☐ Occupational Counselor

☐ School Administrator ☐ Other Educator

During my career I have taught ☐ years.

II. Instructions

Attached hereto are descriptions of twenty-two (22) courses that have been approved for inclusion in the Franklin County Area Vocational-Technical School.

Also attached are two lists of occupational titles. The first list, designated as "List of Occupational Titles," represents those occupations commonly reported that appeared on the occupational survey list of 100 titles furnished to employers. The second list, designated as "Supplemental List of Occupations," represents those additional titles that were either commonly reported or believed by this investigator to have possible significance for this study and were also used by Mr. Carl Wengert in summarizing occupations listed by employers.

You will also find seventeen (17) "Answer Sheets" for the seventeen (17) course descriptions being reviewed.

We ask that you examine the twenty-two (22) course descriptions as tentatively drawn by Mr. Carl Wengert and then proceed to answer the eight (8) questions relative to the seventeen (17) courses selected for this study.

It is our hope that the consensus of expert opinion will point the desirable direction to accommodate the slow learner where practical.

INSERT

ANSWER SHEET

____
Course

1. I have taught this course ________ years. (Use 0, if not at all.)

2. What occupational titles on the "List of Occupational Titles" do you believe to be closely enough related to this course to be justifiably included? (Identify by using numbers from the "List.")

_______ _______ _______ _______ _______ _______ _______

3. What occupational titles on the "Supplemental List of Occupations" do you believe to be justifiably included? (Identify by using numbers from the "Supplementary List.")

_______ _______ _______ _______ _______ _______ _______

4. In your opinion, could instruction in this shop be structuctured to accommodate any slow learners without adversely affecting the over-all instruction?

☐ Definitely yes ☐ I believe so ☐ Doubtful ☐ Definitely not

5. What related occupational titles do you believe could be handled by the slow learner? (Designate by number if on either list.)

_______ _______ _______ _______ _______ _______ _______

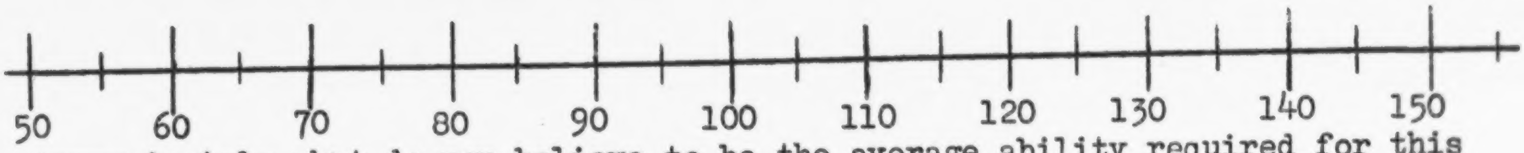
____________________ ____________________ ____________________

6. How many slow learners do you believe could be accommodated?

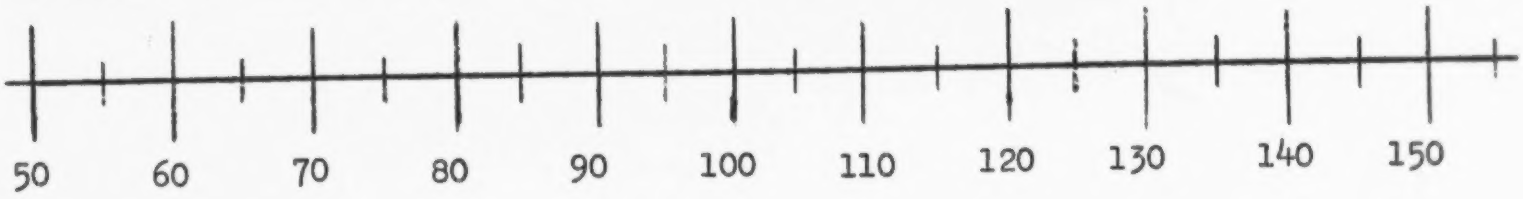
☐ 0 ☐ 1 ☐ 2 or 3 ☐ 4 or more ☐ about half of class

☐ No limit

7. Approximately what is the highest and lowest ability that you would suggest be served by this course? (Indicate by placing arrows on the scale and marking an H for highest and an L for lowest.)



8. Approximately what do you believe to be the average ability required for this course? (Indicate by placing an arrow on the scale.)



ANSWER SHEET

GENERAL QUESTIONS

What occupations, not used in response to any of the foregoing seventeen (17) courses but included on the "List of Occupational Titles," do you believe to be worth considering for the slow learner? (Designate by number.)

_____ _____ _____ _____ _____ _____ _____ _____

What occupations, not used in response to any of the foregoing seventeen (17) courses but included on the "Supplemental List of Occupations," do you believe to be worth considering for the slow learner? (Designate by number.)

_____ _____ _____ _____ _____ _____ _____ _____

Exhibit II

TENTATIVE COURSE DESCRIPTIONS
FRANKLIN COUNTY VOCATIONAL-TECHNICAL SCHOOL

	Sex	Course Length In Years	Total Pupils
AUTOMOBILE MECHANICS	B	3	40

Repairs passenger automobiles and trucks, performing such duties as disassembling and overhauling engines, transmissions, clutches, rear ends and other assemblies on an automobile. Replaces worn or broken parts, grinds valves, adjusts brakes, and tightens body bolts. May be called upon to use gages, testing equipment, to diagnose mechanical defects and estimate cost of repairs and to perform minor body repair work.

AUTOMOBILE TECHNOLOGY	B	3	40

An advanced course in automobile mechanics with emphasis upon electronic and other sophisticated means of diagnosis of mechanical problems, specialized testing equipment, cost estimating, and delicate measuring and adjusting. The student will be taught to read prints and tables and to understand chemical, electrical and mechanical principles related to his specialty.

AUTO BODY REPAIR	B	3	40

Removes dents in automobile bodies and fenders using hammers, back-up blocks, by filling with solder, etc. Smoothes hammered or filled area by filing, sanding, or grinding. May remove parts of bodies and replace with new. May weld breaks and cracks. May replace glass. May blend new paint to old or may repaint entire body. May repair old upholstry or install new.

MACHINISTS	B	3	40

Carries through to completion the construction and repair of all kinds of metal parts, tools and machines. Understands blueprints and written specifications. Uses skillfully all machinist hand tools such as files, scraper, chisels, gages, micrometers and other measuring instruments. Possesses knowledge of shop mathematics, use of charts and tables. Must be familiar with the properties of metals and be able to work metals to close tolerance.

MACHINE TOOL OPERATORS	B	3	40

Will be taught to operate one or more machine tools such as a lathe, milling machine, shaper, planer or other specialized machine. Will be specialized in general machine care and servicing. Will be taught to read tables, charts and blueprints, and use measuring instruments and tools according to the particular machine studied.

PLUMBING, HEATING, PIPEFITTING AND SHEET METAL B 3 40

The student learns to lay-out, assemble, install and repair air, gas, water and waste disposal systems in homes, schools, hospitals, factories or other buildings. He learns to repair faucets, pumps, leaking pipes, gas stoves, fittings and heater pipes. He also learns to repair and install sinks, toilets, bath tubs, gas stoves, heating and air conditioning units, shower stalls and other plumbing and heating equipment.

He may also learn to fabricate parts made from sheet metal, usually tin or galvanized iron, although other metals may be used. The worker cuts and forms the metal by using shears, nibblers, metal brakes, forming rolls, beading machines, hammers and other specialized machines either hand or power operated. Sheet metal workers may construct, install and repair furnaces, metal roofs, metal ceilings, air conditioning systems, airplane sections, refrigerator boxes, metal desks and other furniture.

WELDING B 3 40

Fuses (welds) metals together by means of an oxyacetylene torch or electrical arc welder and welding rods to make metal shapes or articles or to repair broken or cracked metal objects. Must have skill in welding horizontally, vertically or overhead and be able to weld various metals.

BUILDING CONSTRUCTION B 3 40

Cuts, fits and erects the wooden frame work, partitions, stairs, sub-flooring, joists, roofs and other wooden parts of a building. May install trim and finish work. A bench carpenter works at a bench in an industrial establishment or lumber mill to fit and assemble prefabricated wooden sections according to directions or blueprints, performing general carpenter duties such as sawing, planing, jointing, chiseling, gluing, fitting and nailing. May use power saws, planes, drills, surfacers and jointers. May construct scaffolds.

Performs the hand carpentry necessary to cut, shape and assemble prepared parts of high-grade articles of furniture, office and store equipment, and home fixtures. Operates such wood-cutting machines as bandsaws, circular saws, mortiser, molder and sanders to cut and shape parts. Fits parts and secures them by glue, nails, screws, dowels or other fasteners. Finishes surfaces with sanders, scrapers and polishers.

Performs all classes or painting work, such as painting the outside of barns, sheds, houses and other structures, and painting and decorating the interior of buildings.

ELECTRICAL CONSTRUCTION B 3 40

Designs and installs conduit and wire lines for light, power systems, motors, control apparatus, power lines, measuring instruments. Installs, repairs and rewinds motors, diagnoses troubles, repairs starting devices, speed control apparatus and regulating equipment. Installs and services electrical appliances. Installs television sets and tests, adjusts and repairs radio and television. Tests circuits, tubes and parts using test meters.

ELECTRONICS B-G 3 40

Instruction is provided in transistor circuit analysis and applications; receivers and principles of mechanics, heat and chemistry; electrical and electronic measuring instruments; electronic instrumentation--control circuitry and applications; telemetering, facsimile, television principles and radio-electronic telemetry; electronic automated techniques.

DATA PROCESSING B-G 3 40

Data Processing involves the study of number and code systems, analysis of business problems, and coding or programming the problems so that it can be analyzed by the various machines. The course demands interest and competency in mathematics, problem solving ability and proficiency in written and oral communications.

PRINTING B-G 3 40

This is a general term covering a variety of occupations in the printing industry. Performs any or all of the duties concerned with the hand or machine setting of type, placing in press and operating the press to print copy. May set type by hand (compositor); or by machine (monotype, linotype, cold type). May operate platen press, offset press or cylinder press. Must know layout, type styles, binding and assembly.

COSMETOLOGY B-G 3 40

Renders any one or all of the services to patrons of a beauty parlor. Cuts, combs and waves hair; tints or dyes hair; gives hair and scalp treatments; applies various lotions, creams and packs; applies cosmetics, cleans, shapes and polishes patrons' nails. May style hair or accept instructions from patrons. Uses various special pieces of equipment, special liquid and paste preparations. Must pass state license examination.

HEALTH ASSISTANT G 1 40

Prepares patients for examinations, treatments or minor surgery, and assists physician in performing his work by handing him necessary implements or equipment, and by keeping patients comfortable. May do limited technical work such as sterilizing instruments and making less difficult analyses. Meets patients as receptionist, makes appointments, prepares bills, statements and receipts, keeps records and prepares correspondence.

MARKETING TECHNOLOGY B-G 2 40

This is known as Distributive Education and deals with selling, store advertising, window displays, merchandise display, pricing, buying and customer relations. The student will be instructed in the proper use of storage space, inventory control, proper storage conditions, prevention of damage, inspection of materials, receiving and shipping practices.

MECHANICAL DRAFTING, DESIGN TECHNOLOGY B-G 3 40

Prepares clear, complete and accurate working plans and detail drawings from sketches or notes for building or manufacturing purposes according to specified dimensions. Makes drawings showing the relation of one part to another or to the whole structure. Shows details of construction and design so the piece can be made. Uses knowledge of materials, mathematics, engineering practices and other physical sciences to complete the drawing. May do some original designing. The architectural draftsman works with buildings and building materials while the mechanical draftsman works with machinery and machine construction materials.

FOODS PREPARATION AND SERVICES B-G 3 40

Preparation and cooking of food for restaurants and institutions. Making of salads and pastries. Proper serving of food. How to prepare menus and order food in quantity. Proper operation of restaurants and dining rooms.

TEXTILE FABRICATION AND DESIGN B-G 3 40

Measures and records measurements, prepares patterns, cuts material, assembles garment parts by hand or machine sewing. Fits and makes alterations and repairs worn or torn parts.

LANDSCAPING AND HORTICULTURE B-G 2 40

Cultivates trees, shrubs, plants and flowers. Propagates plants from seeds or cuttings or by grafting or budding. Prepares ingrediants for plant beds. Sprays, dusts, and prunes, cuts, grades, pots and packs plants for sale or shipment. Makes and executes plans for landscape plantings. Turf management.

FARM MACHINERY SALES AND SERVICE B 2 40

This course is designed for students who desire to enter occupations dealing with the selection, operation, maintenance, repair and sales of agricultural machinery and equipment. Basic shop skills should include a working knowledge of hand and power tools, hardware and construction materials, arc and oxyacetylene welding, pipe fitting, electric systems and motors, refrigeration, hot and cold metal work, sheet metal work, hydraulic systems, automatic controls. Also selection, safe operation, adjustment and maintenance of: internal, combustion engines, soil preparation and planting machinery, cultivation and spraying machinery, harvesting machinery and materials handling equipment. Units in business and management to include: exploring careers in agricultural machinery and equipment sales and service, preparing for employment, human relations, how businesses are organized, how businesses are operated, business management and supervised occupational experience.

MANUFACTURING AND MATERIALS CONTROL TECHNOLOGY B 2 40

This course deals with the methods and techniques concerned with the efficient use of men, materials and machines in mass production. This course includes layout of machinery and equipment, planning and flow of work, making statistical analysis of production cost and time studies, and the study of production methods. Inspecting, interpreting of blueprints, sketching and writing production plans are included.

PRACTICAL NURSING (ADULT) B-G 1 80

Performs a combination of nursing and housekeeping duties such as to change bed linens, bathe patients, and tends to patients' personal comfort. Takes and records pulse and temperature, and performs other duties as prescribed by the physician.

Exhibit III

LIST OF OCCUPATIONAL TITLES

1. Machinist
2. Auto Mechanic
3. Salesman, General
4. Arc Welder
5. Carpenter
6. Sheet Metal Worker and Layout
7. Draftsman - Mechanical
8. Electrician
9. Sales Clerk
10. Stock Clerk
11. Auto Body Repairer
12. Draftsman - Construction and Architectural
13. Cook and Helper
14. Waitress and Waiter
15. Combination Welder
16. Molder
17. Cylinder Pressman
18. Plumber and Pipefitter
19. Painter - Construction and Maintenance
20. Bricklayer, Mason and Tilesetter

Exhibit IV

SUPPLEMENTAL LIST OF OCCUPATIONS

21. Warehousing
22. Clerk-typist, Secretary and Receptionist
23. Assembly Packer
24. Automatic Data Processing
25. Sewing Machine Operator
26. Shipping Worker and Clerk
27. Electronic Equipment Installer and Repairer
28. Automotive Equipment Operator
29. Mechanic (Maintenance and Service Industry)
30. Bookkeeper and Accountant
31. Mechanical Equipment Processing
32. Office Machine Operator
33. Dry Cleaning Establishment Worker
34. Guided Missile Mechanical Repairer
35. Cashier, Teller and Checker
36. Trouble Shooter (Refrigerator, Radio, Television)
37. Fire Control Instrument Repairer
38. Nurses' Aid
39. Painter
40. Butcher
41. Baker
42. Seamstress and Dressmaker
43. Barber
44. Hairdresser

Exhibit V

SUMMARY OF RESPONSES

Respondents:

3 - Guidance Counselors
3 - Occupational Counselors
1 - School Administrator
1 - Vocational School Director

Question 1

Each of two respondents indicated that they had taught one of the seventeen courses surveyed. One taught Marketing Technology for one year; another taught the Machinist course for six years. In reviewing courses taught, neither one of the respondents differed substantially from the group means.

Questions 2 and 3

OCCUPATIONS - FROM THE TOTAL LIST OF FORTY-FOUR - THAT THE RESPONDENTS BELIEVED SHOULD BE TAUGHT IN EACH OF THE SEVENTEEN COURSES REVIEWED.

Replies to question 2 relating to the "List of Occupational Titles" (Exhibit III) form the first paragraph, and the replies to question 3 relating to the "Supplemental List of Occupational Titles" (Exhibit IV) make up the second paragraph under each course heading.

AUTO BODY REPAIR

Arc Welder (4), Auto Mechanic (3), Combination Welder (3), Auto Body Repairer (2), Sheet Metal Worker and Layout (2), Painter-Construction and Maintenance (1).

Automotive Equipment Operator (1), Mechanic-Maintenance and Service Industry (1), Painter (1).

AUTO MECHANIC

Arc Welder (4), Auto Mechanic (3), Combination Welder (3), Auto Body Repairer (2), Sheet Metal Worker and Layout (1).

Mechanic-Maintenance and Service Industry (3), Automotive Equipment Operator (2), Trouble Shooter-Refrigerator, Radio, Television (1), Electronic Equipment Installer and Repairer (1).

BUILDING CONSTRUCTION

Carpenter (7), Painter-Construction and Maintenance (6), Bricklayer, Mason, and Tilesetter (6), Plumber and Pipefitter (4), Electrician (3), Draftsman-Construction and Architectural (3), Sheet Metal Worker and Layout (1), Salesman, General (3), Combination Welder (1), Molder (1).

Painter (6), Mechanic-Maintenance and Service Industry (2), Electronic Equipment Installer and Repairer (1), Trouble Shooter-Refrigerator, Radio, Television (1).

COSMETOLOGY

Cook and Helper (1), Waitress and Waiter (1), Sales Clerk (1).

Hairdresser (7), Barber (3), Dry Cleaning Establishment Worker (1), Nurses' Aid (1).

ELECTRICIAN (GENERAL)

Electrician (5), Salesman, General (1), Draftsman-Construction and Architectural (1), Auto Mechanic-Electrical Wiring Systems (1), Stock Clerk-Electrical Supplies Store (1).

Trouble Shooter-Refrigerator, Radio, Television (6), Electronic Equipment Installer and Repairer (4), Mechanic-Maintenance and Service Industry (2), Fire Control Instrument Repairer (1), Warehousing (1), Guided Missile Mechanical Repairer (1).

FARM MACHINERY SALES AND SERVICE

Salesman, General (4), Arc Welder (4), Combination Welder (4), Sales Clerk (2), Sheet Metal Worker and Layout (2), Electrician (2), Plumber and Pipefitter (2), Auto Mechanic (1).

Mechanic-Maintenance and Service Industry (3), Warehousing (2), Bookkeeper and Accountant (1), Automotive Equipment Operator (1), Mechanical Equipment Processing (1), Trouble Shooter-Refrigerator, Radio, Television (1).

HEALTH ASSISTANT

None

Clerk-typist, Secretary, and Receptionist (4), Nurses' Aid (4), Hairdresser (1), Bookkeeper and Accountant (1).

LANDSCAPING AND HORTICULTURE

None

Shipping Worker and Clerk (1).

MACHINE TOOL OPERATOR

Combination Welder (1), Draftsman-Mechanical (2), Auto Mechanic (1), Cylinder Pressman (1).

Mechanic-Maintenance and Service Industry (2).

MACHINIST

Draftsman-Mechanical (5), Machinist (3), Auto Mechanic (1), Plumber and Pipefitter (1), Sheet Metal Worker and Layout (1), Combination Welder (1), Molder (1), Cylinder Pressman (1).

Mechanic-Maintenance and Service Industry (2), Automotive Equipment Operator (1), Guided Missile Mechanical Repairer (1).

MANUFACTURING AND MATERIALS CONTROL

Draftsman-Mechanical (2), Stock Clerk (1), Machinist (1), Draftsman-Construction and Architectural, for reading blueprints (1).

Automatic Data Processing (2), Assembly Packer (2), Electronic Equipment Installer and Repairer (2), Shipping Worker and Clerk (1), Cashier, Teller, and Checker (1), Trouble Shooter-Refrigerator, Radio, Television (1), Warehousing (1).

MARKETING TECHNICIAN

Sales Clerk (7), Salesman, General (6), Stock Clerk (6), Waitress and Waiter (2), Cook and Helper (1).

Cashier, Teller, and Checker (5), Shipping Worker and Clerk (5), Warehousing (4), Dry Cleaning Establishment Worker (3), Butcher (1), Baker (1), Seamstress and Dressmaker (1), Barber (1), Hairdresser (1).

PLUMBING, HEATING, PIPEFITTING AND SHEET METAL

Sheet Metal Worker and Layout (6), Plumber and Pipefitter (6), Combination Welder (2), Carpenter (1), Machinist (1), Salesman, General (1), Draftsman-Mechanical (1), Electrician (1), Arc Welder (1).

Shipping Worker and Clerk (2), Mechanic-Maintenance and Service Industry (1).

PRACTICAL NURSING

Cook and Helper (1), Waitress and Waiter (1).

Nurses' Aid (6), Hairdresser (1).

PRINTING

Cylinder Pressman (6).

Office Machine Operator (1).

TEXTILE FABRICATION AND DESIGN

None

Seamstress and Dressmaker (6), Sewing Machine Operator (4), Dry Cleaning Establishment Worker (1).

WELDING

Combination Welder (7), Arc Welder (6), Auto Body Repairer (3), Plumber and Pipefitter (2), Machinist (1).

Mechanic-Maintenance and Service Industry (4), Electronic Equipment Installer and Repairer (1), Automotive Equipment Operator (1), Trouble Shooter-Refrigerator, Radio, Television (1), Fire Control Instrument Repairer (1).

---

* The number in parenthesis indicates the number of respondents naming the occupation.

# The underline means that one-half or more of the respondents named this occupation.

Question 4

RESPONDENTS' OPINIONS ON ACCEPTING SLOW LEARNERS INTO EACH OF THE SEVENTEEN PROPOSED COURSES.

Number of replies (by category) to the question .". . could instruction in this shop be structured to accommodate any slow learners without adversely affecting the over-all instruction?"

	Definitely Yes	I Believe So	Doubtful	Definitely Not
Auto Body Repair	$\boxed{4}$	$\boxed{3}$	1	0
Auto Mechanic	3	③	2	0
Building Construction	3	④	1	0
Cosmetology	$\boxed{4}$	$\boxed{3}$	1	0
Electrician (General)	1	$\boxed{3}$	$\boxed{4}$	0
Farm Machinery Sales and Service . . .	0	3	④	0
Health Assistant	0	④	2	1
Landscaping and Horticulture	$\boxed{4}$	$\boxed{3}$	1	0
Machine Tool Operator	3	③	2	0
Machinist	1	④	3	0
Manufacturing and Materials Control. .	0	1	$\boxed{3}$	$\boxed{4}$
Marketing Technician	2	④	2	0
Plumbing, Heating, Pipefitting and Sheet Metal	3	④	1	0
Practical Nursing	1	⑥	1	0
Printing	0	④	3	0
Textile Fabrication and Design	2	③	2	1
Welding	3	④	1	0

○ - Median

▭ - Median falls between two.

Question 5

JOBS RELATED TO EACH OF THE SEVENTEEN COURSES THAT, IN THE OPINION OF THE RESPONDENTS, COULD BE PERFORMED BY THE SLOW LEARNER.

AUTO BODY REPAIR

Arc Welder (3)*, Combination Welder (2), Auto Body Repairer (2), Sander (2), Taper (1), Disassembler (1), Auto Upholsterer (2), Painter-Helper (1), Spray Painter (1), Auto Accessory Installer (1), Glass Installer (1), Auto Mechanic (1), Sheet Metal Worker (1), Painter-Construction and Maintenance (1).

AUTO MECHANICS

Combination Welder (3), Arc Welder (3), Auto Body Repairer (2), Service Station Serviceman (2), Stock Clerk (1), Assembly Packer (1), Automotive Equipment Operator (1), Helper in stock or parts (1), Auto Electrician (1), Auto Mechanic's Helper (1), Auto Washer (1), Lubrication Man (1), Tire Retreading and Repair (1).

BUILDING CONSTRUCTION

Painter-Construction and Maintenance (3), Carpenter (1), Bricklayer, Mason, and Tilesetter (1), Painter (1), Sander (1), Rough Carpenter (2), Helper (1), Tender (1), Woodworking Machine Operator (1), Furniture Assembler or Repairman (1), Bench Carpenter, including **Assembly** (1), Jobs in manufacturing of mobile homes (1).

COSMETOLOGY

Sales Clerk, in order to obtain instruction in "personality development and grooming," (1), Barber (1), Manicurist (1), Shampooer (1), Facial Operator (1).

ELECTRICIAN (GENERAL)

Electrician (1), Trouble Shooter-Refrigerator, Radio, Television (1), Warehousing (1), Stock Clerk (1), Motor Rewinder (1), Meter Repairman (1), Electrical Assembler (1), Electrical Appliance Serviceman (1), Radio or Television Repairman-Helper (1).

FARM MACHINERY SALES AND SERVICE

Arc Welder (2), Combination Welder (2), Sheet Metal Worker and Layout (1), Plumber and Pipefitter (1), Mechanic-Maintenance and Service Industry (1), Electrician (1).

HEALTH ASSISTANT

Clerk-typist, Secretary and Receptionist (1), Nurses' Aid (1), Physician's Attendant (1), Laboratory Helper (1), Sterilizer (1), Record Keeper-Other than bookkeeping (1), Dental Assistant (1), Attendant-Physical or Occupational Therapist (1).

LANDSCAPING AND HORTICULTURE

Farm Hand-General (1), Nursery Worker (1), Laborer-Greenhouse (1), Flower Grower or Transplanter (1), Laborer-Landscape (1), Bagger and Burlap Man (1), Nursery Order Filler (1), Greenskeeper (1).

MACHINE TOOL OPERATOR

Automotive Equipment Operator (1), Warehousing (1), Assembly Packer (1), Shipping Worker and Clerk (1), Mechanic-Maintenance and Service Industry (1), Machinist (1), Cylinder Pressman (1), Tool Sharpener (1), Burner (1), Machine Cleaner (1), Grinder and Polisher (1), Maintenance Mechanic Helper (1).

MACHINIST

Arc Welder (1), Mechanic-Maintenance and Service Industry (1), Cylinder Pressman (1), Machine Tool Operator (3), Floor and Bench Assembler (1).

MANUFACTURING AND MATERIALS CONTROL

Warehousing (1), Assembly Packers (1)

MARKETING TECHNICIAN

Warehousing (4)#, Shipping Worker and Clerk (2), Stock Clerk (2), Sales Clerk (2), Dry Cleaning Establishment Worker (1), Waitress and Waiter (1), Cashier, Teller and Checker (1), Butcher (1), Hairdresser (1), Grocery Clerk (2), Cashier (1), Wrapper (1), Demonstrator (1), Marker (1), Tagger (1), Delivery Clerk (1).

PLUMBING, HEATING, PIPEFITTING AND SHEET METAL

Sheet Metal Worker and Layout (1), Plumber and Pipefitter (1), Salesman, General (1), Helper (1), Tube Installer in air conditioning and refrigeration (1).

PRACTICAL NURSING

Nurses' Aid (4), Companion (1), Child Care Attendant (1), Ward Attendant (1), Dietary Aid (1).

PRINTING

Cylinder Pressman (1), Pressman (1), Bookbinder (1), Collator (1), Proof Reader (1), Book Sewing Machine Operator (1), Compositor for Job Printing (1), possibly Linotype Operator (1), Advertising-Copy and Layout (1), Folding and Paper Cutting Machine (1).

TEXTILE FABRICATION AND DESIGN

Sewing Machine Operator (1), Seamstress and Dressmaker (1), Buttonhole Maker (1), Apron Maker (1), Alteration Hand (1), Patcher-Mender in Laundry (1), Hemmer (1).

WELDING

Arc Welder (2), Combination Welder (2), Mechanic-Maintenance and Service Industry (2), Sheet Metal Worker and Layout (1), Auto Body Repairer (1), Plumber and Pipefitter (1), Spot Welder (1), Torch Welder (1), Butt Welder (1), Solderer (1), Production Line Solderer (1), Production Line Welder (1), Flame Cutter (1), Brazer (1).

---

* The number in parenthesis indicates the number of respondents naming the occupation.

# The underline means that one half or more of the respondents named this occupation.

Question 6

NUMBER OF SLOW LEARNERS WHO, IN THE OPINION OF THE RESPONDENTS, COULD BE TAUGHT IN EACH OF THE SEVENTEEN COURSES EXAMINED.

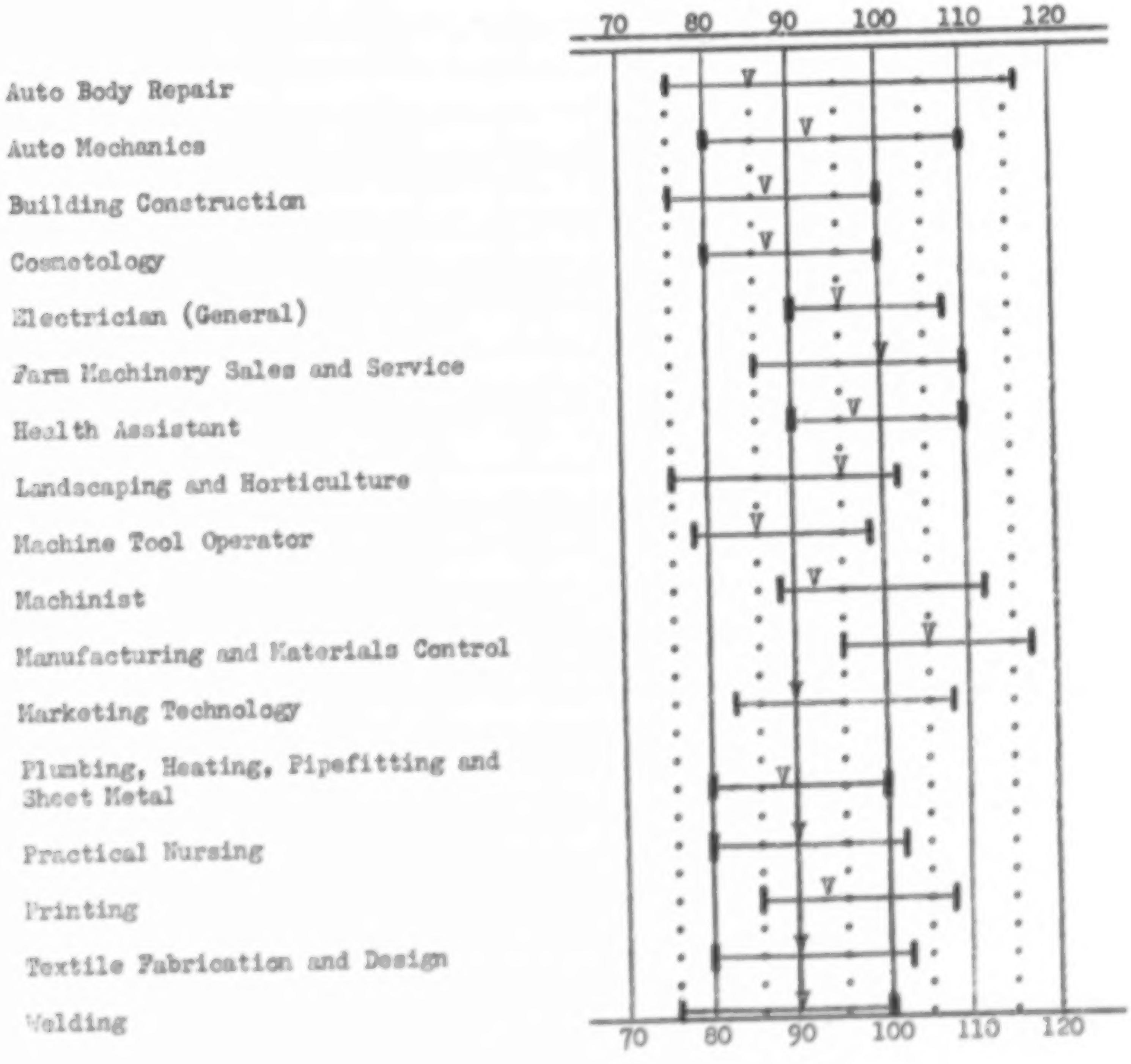
	0	1	2-3	4 or more	about ½ of class	No Limit
Auto Body Repair	0	0	3	②	0	2
Auto Mechanic	0	0	③	2	0	0
Building Construction	0	0	1	④	1	1
Cosmetology	0	0	2	④	1	1
Electrician (General)	0	0	④	3	0	0
Farm Machinery Sales and Service	0	1	④	1	0	0
Health Assistant	1	$\boxed{3}$	$\boxed{3}$	1	0	0
Landscaping and Horticulture	0	0	3	$\boxed{1}$	$\boxed{3}$	1
Machine Tool Operator	0	1	$\boxed{3}$	$\boxed{1}$	0	2
Machinist	2	0	③	2	0	1
Manufacturing and Materials Control	④	0	3	0	0	0
Marketing Technician	0	1	1	②	3	0
Plumbing, Heating, Pipefitting and Sheet Metal	0	1	③	2	0	1
Practical Nursing	0	0	$\boxed{3}$	$\boxed{2}$	1	0
Printing	0	1	⑤	0	0	0
Textile Fabrication and Design	1	1	④	0	1	1
Welding	0	0	3	②	0	3

○ - Median

▭ - Median falls between two.

Questions 7 and 8

SUGGESTED I.Q. RANGE AND AVERAGE ABILITY FOR EACH OF THE SEVENTEEN COURSES REVIEWED AS INDICATED BY GROUP MEDIANS OF THE RESPONDENTS.



V - Group median - Average ability required.

|——| - Range established by low and high group medians.

General Question 1

JOBS - FROM THE "LIST OF OCCUPATIONAL TITLES" - THAT ONE OR MORE OF THE RESPONDENTS BELIEVED TO BE WORTHY OF CONSIDERATION FOR THE SLOW LEARNER BUT NOT PROVIDED FOR BY ANY OF THE SEVENTEEN COURSES REVIEWED.

Cook and Helper (6)[*][#]

Waitress and Waiter (4)

Sales Clerk (9)

Stock Clerk (2)

Painter-Construction and Maintenance (2)

Molder (1)

---

[*] The number in parenthesis indicates the number of respondents naming the occupation.

[#] The underline means that one-half or more of the respondents named this occupation.

General Question 2

JOBS - FROM THE "SUPPLEMENTAL LIST OF OCCUPATIONS" - THAT ONE OR MORE OF THE RESPONDENTS BELIEVED TO BE WORTHY OF CONSIDERATION FOR THE SLOW LEARNER BUT NOT PROVIDED FOR BY ANY OF THE SEVENTEEN COURSES REVIEWED.

Warehousing (4)[*][#]
Assembly Packer (4)
Sewing Machine Operator (3)
Dry Cleaning Establishment Worker (3)
Painter (3)
Nurses' Aid (2)
Butcher (2)
Baker (2)
Seamstress (2)
Barber (2)
Shipping Worker and Clerk (1)
Automotive Equipment Operator (1)
Mechanic-Maintenance and Service Industry (1)
Hairdresser (1)
Office Machine Operator (1)
Mechanical Equipment Processing (1)

---

[*] The number in parenthesis indicates the number of respondents naming the occupation.

[#] The underline means that one-half or more of the respondents named this occupation.

CRITERIA RATING SCALE

A Model Vocational Education Program for the Slow Learner Should:

	1	2	3	4	5
1. Allow for the development of a healthy self-concept through recognition of and participation in useful work.	☐	☐	☐	☐	☐
2. Provide experiences which allow for the development of respect for all levels of occupational skill.	☐	☐	☐	☐	☐
3. Provide sufficient work activities so every child can function at his level of ability.	☐	☐	☐	☐	☐
4. Provide each student with sufficient training to allow for the development of employable skills.	☐	☐	☐	☐	☐
5. Develop an image of quality education regardless of the work skill level being taught.	☐	☐	☐	☐	☐
6. Be developed with full consideration for benefits to the child and to society.	☐	☐	☐	☐	☐
7. Avoid groupings that tend to mark the child as a slow learner.	☐	☐	☐	☐	☐
8. Be diverse enough to provide for the varied needs of the students enrolled.	☐	☐	☐	☐	☐
9. Provide for curricular experiences which allow for vertical and horizontal mobility.	☐	☐	☐	☐	☐
10. Attain standards of achievement commensurate with the realistic requirements of the occupation or vocation selected by the student.	☐	☐	☐	☐	☐
11. Be well coordinated with the sending school.	☐	☐	☐	☐	☐

	1	2	3	4	5
12. Offer educational opportunities for every child in this group regardless of intelligence level, provided the child shows evidence of a willingness to profit from the school's efforts.	☐	☐	☐	☐	☐
13. Conduct an educational program that is both inspirational and motivational for the students enrolled.	☐	☐	☐	☐	☐
14. Develop social competencies by co-mingling slow learners with students of all abilities to the greatest extent possible.	☐	☐	☐	☐	☐
15. Provide experiences which build respect to the value and dignity of work, regardless of whether it is white collar or blue collar work.	☐	☐	☐	☐	☐
16. Provide an opportunity for exploration in several occupational groups.	☐	☐	☐	☐	☐
17. Maintain its practicality by keeping abreast of industrial innovations and trends and insuring that these will be reflected in the curriculum whenever and wherever possible.	☐	☐	☐	☐	☐
18. Provide vocational learning experiences for both boys and girls.	☐	☐	☐	☐	☐
19. Consider staff competencies and interests in relationship to the general objectives of the overall program.	☐	☐	☐	☐	☐
20. Provide an educational climate that is conducive to academic and vocational achievement.	☐	☐	☐	☐	☐
21. Develop an appreciation of good workmanship and good design.	☐	☐	☐	☐	☐
22. Develop the habit of orderly procedure in the performance of any task.	☐	☐	☐	☐	☐

		1	2	3	4	5
23.	Develop the habit of self-discipline which requires one to do a thing when it should be done, whether it is a pleasant task or not.	☐	☐	☐	☐	☐
24.	Create a spirit of cooperation among its members in order to insure harmonious working relationships as well as the successful completion of group projects.	☐	☐	☐	☐	☐
25.	Develop desirable attitudes and practices with respect to health and safety.	☐	☐	☐	☐	☐
26.	Provide experiences which allow for the development of skillful manipulation of tools, equipment and materials.	☐	☐	☐	☐	☐
27.	Provide experiences which familarize the student with nomenclature essential to success in his chosen occupation.	☐	☐	☐	☐	☐
28.	Familarize the student with the customary procedures and work methods employed by industry and by workers in the various trades.	☐	☐	☐	☐	☐
29.	Emphasize the importance of accuracy, neatness, and speed in the performance of trade operations.	☐	☐	☐	☐	☐
30.	Provide guidance in obtaining employment and in evaluating factors necessary for holding a job.	☐	☐	☐	☐	☐

7

FEDERAL PROJECT #66-1223
Franklin County Board of School Directors
Chambersburg, Pennsylvania

August 25, 1966

Dear :

In connection with Federal Project #66-1223, we are asking the members of the Professional Advisory Committee of the Franklin County Area Vocational-Technical School to assist in determining the criteria for a model vocational education program for the slow learner.

A suggested list of criteria is enclosed.

This list has been prepared in order to obtain your reaction to each of the criteria. We ask that you indicate your degree of acceptance by placing a check mark in the box as follows:

1. Strongly agree with the statement.
2. Agree
3. No comment (I neither agree nor disagree).
4. Disagree with the statement.
5. Strongly disagree.

Space has been provided between each statement for you to write any comment or condition that you might have.

Also, please write additional criteria that you would like to suggest on the back of the questionnaire. We especially encourage your suggestions.

Your cooperation in returning this at the earliest possible moment will be appreciated.

Cordially yours,

/s/ Richard L. Kitzmiller

Richard L. Kitzmiller
Assistant County Superintendent

REPORT
CONFERENCE OF CONSULTANTS
December 14-15, 1966

December 14, 1966

A conference with consultants concerning a vocational education curriculum for the slow learner was held on December 14 and 15, 1966, at the Travel Lodge in Chambersburg, Pennsylvania.

Those consultants present for the first meeting on December 14 were:

- MR. JOHN L. COTHORN, Principal of the Carrollton School, Baltimore, Maryland.
- DR. DONALD G. McGAREY, Professor of Secondary Education, Pennsylvania State University, State College, Pennsylvania.
- MR. JOHN M. RECKLITIS, Director of Vocational Education, Penn Hills School District, Pittsburgh, Pennsylvania.
- MR. JOHN W. STAHL, Director, Vocational-Technical School, First District, Westchester County, New York.

Also present were MR. RICHARD L. KITZMILLER, director of the project; DR. MICHAEL A. CIAVARELLA and MRS. EMMA JONES, research assistants; MRS. GALJA VOTAW, recorder; and MRS. DORIS NAUGLE, secretary. MR. STEPHEN SWOREN, Technical Education Specialist, Department of Public Instruction, Harrisburg, Pennsylvania, was not present at this first meeting.

The purpose of this meeting was to obtain ideas from specialists in planning a program for slow learners in the vocational-technical school.

MR. KITZMILLER distributed a booklet especially compiled for this conference, and explained some of the material in it.

The conferees were invited to contribute some general information based on their own experiences.

MR. RECKLITIS gave some facts about Penn Hills School District. First, he said that his school district leans toward an academic curriculum for slow learners, that it believes in a good, general education, and that it serves any child who does not intend to enter college. Then, he explained that his program for slow learners provides for a half day of classroom instruction and a half day of vocational-technical training. And finally, since students like to identify with their home high schools, he suggested that high schools and vocational-technical schools be built together. He stressed as well the importance of service occupations for slow learners.

MR. COTHORN said that School 183, the Carrollton School, is a two-year school. It receives its pupils after they have been screened from all the other vocational schools in Baltimore. Students who must attend lower rated schools may rebel and show a sense of inferiority. Regardless of what the school can do, the student's rejection of it prevents him from benefitting.

MR. STAHL said that his school is set up mainly for the eleventh and twelfth grades although some students in lower grades are admitted if they are considering quitting school and are old enough to do so. Students are permitted to change courses if they wish. They attend high school half of the time and the vocational-technical school the other half.

At this point, MR. KITZMILLER presented an overview of the project to date including:

- The nature of the problem to be explored.
- The objectives.
- A definition of the slow learner.
- The background and need.
- Status of pupils with I.Q.'s of 90 or less in Pennsylvania area vocational-technical schools.
- Status of plans for an area vocational-technical school in Franklin County.
- Philosophy of the Franklin County Area Vocational-Technical School.
- The Occupational Survey and resultant courses approved.
- A report on a conference of Franklin County area guidance counselors including their understanding of the approved courses and the attendant opportunities for the slow learner.
- A reexamination of the Franklin County Occupational Survey in conjunction with facts presented by the 1960 census and the Pennsylvania Department of Internal Affairs.
- Jobs slow learners can do as revealed by a conference of occupational counselors.
- Jobs slow learners can do as revealed by an exercise with the new Dictionary of Occupational Titles numbers using guidance counselors, occupational counselors, the director of the Franklin County Area Vocational-Technical School, and the schools' chief administrators.
- An examination of the approved courses by the same group to determine the potential of the school for serving the slow learner.
- The criteria developed for a model vocational education program for the slow learner in a vocational-technical school as developed by this project, using the members of the Franklin County Area Vocational-Technical School Professional Advisory Committee.

At this point, the group considered the criteria set up for vocational education for the slow learner in the vocational-technical school and explored ways in which the program can be designed to provide for the requirements of the criteria.

The first criterion concerned developing a healthy self-concept through recognition of and participation in useful work. The student should be offered many opportunities to engage in productive work. He should have a chance to engage in activities in which he can be successful. He must also be made to realize his limitations and achieve success regardless of ability. He should be able to evaluate himself. In order to be able to accomplish these objectives, he must be offered the right courses at his level of ability.

The second criterion concerned providing experiences allowing for development of respect for all levels of occupational skills. The third involved providing work activities for all children at all levels. One conferee thought these two could be considered as one since they concern occupational experiences for all levels of ability. But, DR. McGAREY felt they are different because the second criterion allows for respect of work without necessary participation while the third criterion states that a variety of work should be offered to the students of all levels. If a child can respect himself in the work he is doing, he will have respect for other types of work at other levels. Work in the home high school must be functional for all levels.

The fourth criterion centered upon the following problem: each student should have enough training to develop an employable skill. MR. STAHL thought the training should be broad enough that the student can find work in several areas. If training is limited, students may not be able to find employment in the one thing they may be trained to do. Perhaps training in cluster areas (several smaller related courses under one title) would provide ample training for students. MR. RECKLITIS suggested exploratory courses for students. MR. STAHL thought these exploratory courses should teach specific skills as a first course in a unit shop. MR. COTHORN said students in junior high school usually do not have enough shop or work experiences to enable them to decide what courses they would like to take in later grades. Courses should be up-to-date and related to industry. Students should be given an idea of what work is like in industry.

Criterion five states that an image of quality education should be developed regardless of the level of the work skill being taught. All students deserve the best education that can be given. MR. COTHORN said the school should set the standard and the student should try to work up to the standard. The student should be able to feel that he is in a quality program. According to DR. McGAREY, a quality program is one which has an appropriate place for every student enrolled and in which every student is doing his best at any given moment. All possible opportunities must be offered and students should do their best on their own levels.

This criterion is necessary in the home high school also. Here teachers are the key point. They must offer courses on different levels to the different ability levels of students instead of "watering down" high-level courses for lower ability levels. There should be the same concern for vocational students as there is for academic students.

Criterion six states that the slow learner program should be developed with full consideration for benefits to the child and to society. All agreed.

Criterion seven states that groupings should be avoided which tend to mark a child as a slow learner. All agreed. MR. STAHL felt that we should do everything we could to avoid marking these children. MR. COTHORN expressed that the home school could do much by the attitude they engender and by proper assimilation of these children into a functional program. MR. RECKLITIS volunteered that the part-time work experience program could be used as a device to provide occupational training without marking these children. DR. McGAREY observed that parents, teachers, and guidance counselors have made it appear that some differences mean inferiority. No unusual steps should be taken to hide the fact that some students are different. Everyone should be made to regard slow learning students as different rather than inferior. The more students understand about their school and what it is trying to do, the more understanding they will show to each other.

Criterion eight states that a program should be diverse enough to provide for the varied needs of students enrolled. All agreed that this is an important criterion. Many suggestions were advanced for building diversity into a program and considerable discussion ensued.

MR. RECKLITIS felt that a good way to obtain this diversity would be to make use of work experience programs. The group, however, cautioned that by so doing, we do not permit the slow learner's education to be left to the community. Such a program should be a cooperative, part-time program. Something must be done for him in the school. Never should the school use a work training program as a way to get rid of the student. DR. McGAREY suggested that some part of the work experience should be provided early in the program. A second, or terminal, on-job experience was also suggested.

Providing courses consisting of job families or clusters was suggested as another way to provide greater course offerings suited to the slow learner. MR. STAHL suggested that we throw out I.Q. and give the boy or girl an opportunity to try out training in the skills.

Breaking long courses into several subjects of duration of one-half year or less was suggested as a device for building diversity and flexibility into the vocational school. By use of shorter subject areas, the school could develop a greater variety of courses or instructional tracts.

In criterion nine, it was suggested that provision be made for vertical and horizontal mobility. This criterion was endorsed. It was expressed that many of the steps taken to provide diversity of program would make vertical and horizontal mobility more possible, especially if many short subjects can be introduced to replace the practice of subjects of one-year duration.

It was emphasized that a child should be able to move both vertically and horizontally in a program in accordance with his interests and ability. Caution was made that we do not decide for the child what he can or can not do.

Because the hour was drawing late, the practice of discussing criteria in order was discontinued. The consultants were encouraged to examine the remainder of the criteria and bring up appropriate points for discussion.

MR. STAHL singled out criterion eleven - be well coordinated with the sending school. This element had been suggested earlier as a way to obtain greater opportunities for the slow learner.

MR. COTHORN underlined number thirteen - that the educational program be inspirational and motivational. This is really necessary.

MR. RECKLITIS drew attention to criterion nineteen - consider staff competencies and interests in relation to the general objectives of the program.

DR. McGAREY endorsed number fourteen - develop social competencies by co-mingling slow learners with students of all abilities to the greatest extent possible. The group concurred. You have to watch this one when getting the faculties of the sending schools and the vocational-technical school together in terms of the total impact on children.

During the course of this session, pertinent discussion evolved around several related facets of the program. Notes on some of these discussions follow:

Guidance

Guidance counselors generally are weak in knowledge of occupations. The Pennsylvania State University, in cooperation with the Department of Public Instruction, is offering five groups of thirty counselors each a five-week course designed to provide counselors with more information in this area.

Counselors would profit by a few weeks each summer in business and industry.

Counselors should be in constant contact with employment counselors.

Titles such as "Vocational Guidance Counselors" should be avoided for high school guidance counselors.

Coordination of Vocational-Technical School with the Home High School

It was emphasized that proper coordination is essential to the solution of our problem. The home high school faculty and the vocational-technical faculty should regard themselves as one with a single objective - the full education of all children.

Devices suggested to promote the desired coordination include:

Employment of part of the vocational-technical school staff one year in advance of opening to develop a curriculum in cooperation with the home school faculties.

Selected numbers of the home school faculty to meet regularly with the vocational-technical school faculty.

Frequent meetings of both faculties.

Complete coordination of guidance activities.

Total faculty (vocational-technical and home high schools) work to identify general concepts that they want to develop such as - What do we mean by quality production? - Good human relations on the job.- A day's work for a day's wage. - Democracy, etc.

A good administrator to pull these factors together.

Home high school faculty members should have the opportunity to visit the vocational-technical school in operation.

Placement

Someone should be on the vocational-technical school faculty to work with business and industry in order to assist the students with a smooth transition from school to a job and in order to guide the school and the pupil into the training that the business or industry wants.

Exploratory Experience in the World of Work

The group concurred that the one period per week junior high school exploratory course does not provide the experiences necessary for the child. Suggestions such as cooperative work programs; more intensive, first-course type of instruction in ninth and tenth grades; short subjects; and constant, closer contact with business and industry were advanced as ways to provide the child with a better variety of experiences.

The first session adjourned at 9:15 P.M.

December 15, 1966

The second day of the conference of consultants began at 9:00 A.M., December 15, 1966, at the Travel Lodge in Chambersburg, Pennsylvania.

Consultants present were MR. JOHN L. COTHORN, DR. DONALD G. McGAREY, MR. JOHN RECKLITIS, MR. JOHN W. STAHL, and MR. STEPHEN SWOREN. Also present were MR. RICHARD L. KITZMILLER, director of the project, DR. MICHAEL A. CIAVARELLA and MRS. EMMA JONES, research assistants, and MRS. DORIS NAUGLE, secretary for the project.

The greater part of this meeting was directed toward obtaining solutions for numerous obstacles to the operation of a vocational-technical program for slow learners in conjunction with an area vocational-technical school.

Image of the Area Vocational-Technical School

The first obstacle concerned the relationship of the slow learner to a quality image for the school. Some vocational-technical schools seem to feel that the slow learner will detract from the quality of the school and the image it wishes to present. Others want to keep the slow learner out of the school until a reputation for quality is established by the school. The group was asked to react.

MR. RECKLITIS felt that an occupational services curriculum should be built within the vocational-technical school in which a slow learner could be successful. Two examples given were gas station attendant and waitress. Pupils could select an area of their choice. He said the school should be built to provide training for young people going into the world of work.

Fear of becoming a dumping ground for home high schools is very real to vocational-technical schools. MR. STAHL felt that the reason for this is the discipline problem created by the underachievers rather than the presence of the slow learner in the school. The underachiever is always in trouble somewhere. He is the one the vocational-technical people are concerned about.

Students wanting to go into the vocational-technical school should be carefully screened. Everyone who fails in the home high school should not automatically become a candidate for the vocational-technical school. Too many problem children in a vocational-technical school will cause trouble. Other students, including the slow learner, will not want to be associated with such a school.

There are plenty of jobs for these youngsters, according to MR. SWOREN. The problem is getting them in the right tract. Motivation in the shop is very important.

DR. McGAREY said two concepts were necessary in order for a vocational-technical school to have a good image. First, the school has a good image only if it serves all children. The faculties of both the home high school and the vocational-technical school must feel this way. Second, there must be developed a point of view on the part of the faculties of both schools that they are part of the same system working together for the benefit of all students. In order to project the concept of quality education, teachers must come to realize that all students are equally important. Teachers will have to experience many of the thought processes brought out in this conference. Quality exists when a child is doing his best in a job he will most likely succeed. All teachers must feel that their job is to provide quality education in their domain for all kinds of students. There should be no escape hatch or dumping ground anywhere used to get rid of problem children.

MR. RECKLITIS added that all teachers should get together to discuss problems and find out exactly what each school is doing. Teachers have different reactions to different students. If all children are to get a quality education, the teachers will have to work together to provide it.

Quota System

The next possible obstacle was the use of the quota system in admitting students to the vocational-technical school. Where facilities are limited, some students will be denied entrance. MR. KITZMILLER suggested that too often brighter children seem to get into occupational courses rather than those children for whom these courses are intended. MR. SWOREN said that this problem would disappear if adequate facilities, equipment, and guidance were provided.

Sometimes screening out slower students is the path of least resistance for the principal who is scheduling these students. Also, those people who are doing the screening many times do not know the complete occupational offerings of the vocational-technical school. Guidance counselors need a better understanding of the occupational world. They should have work experience, wider backgrounds, and be under less pressure to "get Johnny into college." Counselors should know exactly what the vocational-technical programs are offering in order to counsel students properly. They must work with teachers and people outside the school in order to know what types of programs are needed in the school.

DR. CIAVARELLA also reported that he had his graduate students make a survey of time spent by guidance counselors with college-bound and non-college-bound students. This survey was repeated seven times in a three-year period. The results each time were approximately the same: The counselors spent 65% of their time with college-bound students and 35% with the rest of the students. They, thus, devote more time to the smaller number of students.

Attitude of Vocational-Technical Staff

Another obstacle concerned the staff. Can vocational-technical instructors be hired who possess the philosophy and sympathetic understanding to work with all pupils? Too often instructors are too academically oriented and want to develop very high performance standards. They are therefore inclined to label the slow learner as one who cannot do the work.

MR. COTHORN thought this type of instructor should be kept strictly on the technical level because this is often the way he has been taught and often the way he teaches his pupils.

DR. McGAREY said teachers should be concerned more with what the subject does for the child rather than what the child does for the subject. The basic business of vocational-technical instruction is building people. The staff should be able to decide what the child needs and give him that.

MR. RECKLITIS observed that often people can do only one job, but they do it well. The craftsman coming in to teach will know that a person can make a living doing only one thing. He will recognize that the pupil will not need to know the whole subject. Staff members should know their subject well. They should also like children.

According to MR. SWOREN, a teacher from industry often has trouble in making the transition from industry to the classroom and the administrator does not help him. The administrator frequently fails to set up either an in-service orientation program or a training program. He makes very little effort to try to bring the craftsman-teacher into focus with the problems he will face daily. An effort must be made to make the teacher from industry feel as if he belongs to the system.

MR. STAHL cited the salary problem that occurs when a craftsman is brought from industry to teach. He is reimbursed at the same rate he made in industry. This salary is often more than the regular teacher earns; this situation invariably causes rivalry.

When a man is brought into the school from industry, he needs some college training to enable him to teach. This training should be of the type that will help him immediately. Education courses too often do not fit this pattern.

Sometimes a craftsman, even with training, cannot handle a slow learner. He simply does not have the necessary attitude to deal with that type of student. The craftsman who can teach slow learners is the type that must be found.

DR. CIAVARELLA said that the school should never hire someone by merely looking at his credentials. Know the person before hiring him. Know if he can handle children. The type of staff hired will determine the philosophy of the school.

Attitude of the Home School Faculty

The attitude of the home school faculty was the next obstacle considered. The home school faculty often looks upon the vocational-technical school as a place to unload pupil problems for part of the day. Even if the child does well in the vocational-technical school, he will often have trouble when he returns to the home high school for his academic subjects.

Again, DR. McGAREY emphasized that the administrators and faculty of both schools must develop similar attitudes concerning the education of all students. Both must participate in planning the program of the vocational-technical school. Somehow, they must participate in the same thought processes which lead to a similar philosophy.

MR. STAHL told of meetings his school schedules in order to remedy this situation. They have an annual meeting with principals and guidance counselors of the home schools in order to go over all problems and programs. Once a month all principals meet. Chief school officers also meet once a month in addition to an annual meeting held to discuss the vocational-technical school program.

Much time needs to be spent with faculty and administration of the six schools in the Franklin County area between now and the day the vocational-technical school opens in order to attack the problem of better education for all students. They must review what is being done and what more can be done. They must be totally involved or the program will not succeed.

Guidance Personnel and Screening Procedures

The next obstacle discussed was screening and guidance. It is said that guidance counselors would rather work with the college-bound than other students; that many slow learners are screened out because of limited opportunities in the vocational-technical school.

The group felt that entrance requirements should be based on the type of course rather than mere entrance to the school itself. Prerequisites are necessary for some courses.

A flexible schedule with many possible courses is an absolute necessity. If courses are broken into many short subjects, students can select what they will be able to do in the field of their interest. MR. KITZMILLER said that by this technique, existing courses could be expanded to include many more courses. By encouraging horizontal as well as vertical movement in the program, a multitude of offerings can be made available to the student.

MR. RECKLITIS endorsed short-term courses so that students could try more than one subject until they find out where they belong. They should be allowed to explore.

DR. McGAREY proposed an ungraded program which would enable students to move along at their own rate of speed. "This," he added, "could be an ultimate goal for the school."

Knowledge of the Slow Learner

Another possible obstacle is lack of professional knowledge of exactly who the slow learner is and what he can do. Often a teacher will pass this child off as one who can't learn. Because he is not motivated or not responding to academic requirements, he may become a dropout.

The slow learner should not be taught "watered-down" subjects that were originally designed for another type of student. The subject-area teacher must face this fact and develop material that the student requires.

Effect of Slow Learners on Class

The next obstacle concerns a fear on the part of many people that the presence of slow learners in a class will deprive the other children of quality education. It is claimed that many instructors will permit slow learners to slow down the entire class.

One answer to this is to form smaller groups within the main group or class. This is done in elementary school, but high school and vocational school teachers do not seem to know how to do it. Children learn in spurts. If the class is put into groups, these groups can work at their own levels, according to MR. SWOREN.

Graduation Requirements

Graduation requirements can be an obstacle for the slow learner. Too often these requirements are established with the college-bound student in mind. Teachers tend to approach instruction of all classes with this orientation and expectancy.

Teachers must be reoriented regarding classroom instruction. Since all children are not college-bound, they should not be expected to conform to college-bound requirements. The students should be taught according to their needs.

Established Vocational-Technical Courses not Suitable for the Slow Learner

Although area vocational-technical schools in Pennsylvania are required to provide occupational courses as well as vocational and technical courses, many vocational-technical schools do not relate these courses to the slow learner. One vocational-technical school director, after studying the definition of the slow learner used in this project, said that it is doubtful if the slow learner could be accommodated in any of the shops in his school without adversely affecting the over-all instruction. Courses such as Auto Body Repair, Welding, and Cosmetology could accommodate only two or three slow learners, according to this director.

The group agreed that this type of director should not be hired to run a vocational-technical school. This is the wrong attitude. All children are entitled to a good education. Again, a slow learner should be able to work at something he can do, and such courses should be offered.

It was brought out that slow learners might feel inferior if they are put in a course considered beneath average students. Here, respect for useful work is very important and should actually begin in the first grade. Anyone who is doing his job is entitled to as much respect as anyone else, regardless of whether or not he is a slow learner. The fact that some courses are not as technical as others should not make a difference.

MR. KITZMILLER emphasized the importance of guidance and choice as opposed to course assignment.

After these obstacles were discussed, MR. KITZMILLER posed another question: Would it be better to hire specialists from industry to teach in the vocational-technical school or employ regular, college-trained teachers, using temporary specialists from industry when needed?

Some of the group thought that teachers directly from industry would be best for teaching the skilled trades. They know what industry expects and can teach accordingly. A teacher who has not been in a craft will not know the needs of the craft. For broader trade areas, this point is not as important. Some craftsmen are closer to the pupil than an academically oriented instructor. His language must be on a par with that of the students.

College courses must be more suited to fitting people quickly from industry into the classroom. There must be some means for the craftsman to keep abreast in his field. Usually the need for this type of course is not even recognized. One unfortunate thing is tying salary to the credits earned. The teacher will take the credits he needs to increase his salary before he takes work to keep current.

A floating staff member to relieve teachers to take workshops was suggested.

MR. KITZMILLER then asked the conferees for their priorities in establishing a vocational-technical program to accommodate the slow learner. He gave three examples.

(1) Selecting a good quality staff that can work with slow learners is important.

(2) Facilities should be ready as soon as there is demand for them.

(3) A flexible program, which includes more and shorter subject areas, should be built within the school with an eventual view to making something like a non-graded school system.

MR. STAHL then listed certain requirements.

(1) The program should not be directed only to the slow learners, but also to all students not academically oriented, to those not interested in a skilled craft, and possibly even to those who are not interested in anything.

(2) The program should find ways of interesting students.

(3) The program must teach a variety of subjects so that students have several avenues open to obtain employment.

(4) Course content must meet the level of the student and the student must be able to develop at his own rate.

MR. COTHORN cited several recommendations.

(1) All six districts must be involved in the program. They must know what is being done and have an active part in contributing to the planning of the program. They must want to be part of the program.

(2) Curricula must be selected to meet the needs of the slow learner under the same roof as the other students.

(3) Coordination must be present between the sending school and the centered school so that when a child goes back to the sending school, he will be disseminated with all types of children and not only slow learners.

(4) The courses taught in the sending school should engender attitudes toward work.

MR. RECKLITIS then stated some points that he felt were important.

(1) The curriculum should be flexible enough so that the student is

not held to a choice made in the ninth grade when his choice was probably uncertain. He should have a good, general education and exploratory, salable, work skills. He should have an opportunity to change courses.

(2) Whenever possible, it is a good idea to have the vocational-technical school program in the same building as the high school. This is something to look forward to in the future when new high schools are built.

MR. SWOREN made several points.

(1) It will be necessary to set up an acceptable curriculum.

(2) After a curriculum is set up, it will be necessary to sell it.

(3) The next step is to have it accepted.

(4) Someone should stay with the slow learning group to coordinate their program with the other program in operation. A specialist could do this by working with the shop instructors.

DR. McGAREY listed several things he felt were necessary.

(1) The faculty must revamp their thinking into feeling that all children are important. Both home school faculty and vocational-technical school faculty must feel they are working together to help all children.

(2) The director and at least a skeleton staff of the vocational-technical school should be hired one year in advance of the opening of the school. It is easier to set up curricula if a staff is there to help. That means, also, less time spent on hiring a staff during that year and more time spent on curricula when it is necessary.

(3) This faculty should get together with the home school staff to work on concepts both will use in grades seven through twelve.

(4) The vocational-technical staff should be working on its own curricula to see that it has horizontal and vertical mobility, etc. By the time students enter the school, much planning should already by done.

(5) Perhaps a consultant to help in the planning could be useful. He should be used as a consultant only and not be required to do any actual planning. A good chairman would also be necessary to keep everyone on the right track.

The meeting adjourned at 12:00 noon.

APPENDIX N

REFERENCES TO INFORMATION
ON INSTRUCTIONAL TECHNIQUES AND MATERIALS
FOR USE WITH THE SLOW LEARNER

INTRODUCTORY NOTES

This section summarizes writings encountered during the course of the study that suggest teaching techniques, procedures and materials of possible application to instruction of the slow learner. Other than a cursory assessment of potential applicability, little attempt was made to evaluate this literature. All works have been included on the premise that they have value as resource materials to educators endeavoring to improve curricula for slow learners.

The several broad areas included are found listed in the directory followed by the page number. The selected references are listed under the area topics. Some of the references pertain primarily to the mentally retarded student. However, these were included because it was felt that, for the type of program under consideration, the methods discussed are applicable to the slow learner. A short paragraph is included which attempts briefly to point out the major highlights of the article or book as it bears upon the present research theme.

A number in parenthesis following an item refers to a publication listed in the main bibliography of this report.

DIRECTORY

WORKS CONTAINING GENERAL INFORMATION ON TECHNIQUES, METHODS AND MATERIALS N-3

AUDIO-VISUAL INFORMATION N-4

PROGRAMMED INSTRUCTION N-6

ORGANIZATION AND ADMINISTRATION N-7

Team Teaching N-7

Class Size N-8

Continuous Progress Program N-8

Work-Study Programs N-9

Guidance N-10

SUBJECT AREAS N-12

Language Arts N-12

Mathematics and Science N-15

Social Sciences N-17

Vocational Instruction N-18

Obtaining and Holding a Job N-20

WORKS CONTAINING GENERAL INFORMATION ON TECHNIQUES, METHODS AND MATERIALS

Annotated Listing of Selected Resource Materials for Newer Programs in Special Education, compiled by Richard L. Shick and Winifred Randolph. Mansfield, Pa.: Mansfield State College, April 16, 1966.

The Education of Disadvantaged Children: A Bibliography, compiled by Lois B. Watt and Others. Office of Education, Washington, D.C.: U.S. Government Printing Office, August 15, 1966.

"Effects of Failure on Intellectually Retarded and Normal Boys," by William Gardner. American Journal of Mental Deficiency, LXX, no. 6 (May 1966), 902.

> The author concluded from his research that the use of failure or threat of failure as a general technique of facilitating goal directed behavior is not a wise approach to follow with the slow learner.

An Exploration of Classroom Procedures For Teaching Trainable Mentally Retarded Children, by Margaret Hudson. [A research monograph] , Washington, D.C.: National Education Association, 1960.

> Forty-three specific teaching techniques were identified and categorized according to eight major areas of teaching methods. The results obtained from these teaching techniques are discussed.

The Mentally Retarded Child, by Halbert B. Robinson and Nancy M. Robinson. New York: McGraw-Hill Book Co., 1965.

> The authors discuss techniques and methods found useful in educating the slow learner. They stress the importance of realizing that retarded learners differ from normal children in the slowness and inefficiency with which they acquire knowledge and skills.

Motivation: Theory and Research, by Charles N. Cofer and Mortimer H. Appley. New York: John Wiley and Sons, 1964.

> This book provides an accurate, clear account of the recent literature on motivation.

"The Poor Scholar's Soliloquy," by Stephen Corey. Childhood Education (January 1944), 219-220.

Emphasizes the concrete as opposed to the abstract in educational materials and techniques for slower children.

Secondary Level Resource Guide for Educable Mentally Retarded, by V. Contrucci and Others. Madison, Wis.: Department of Public Instruction, 1964.

A practical guide containing a compilation of a wide variety of techniques, methods, activities, etc. Appropriate for the mildly retarded. The contributors are mainly teachers and supervisors for the Wisconsin special education programs.

The Slow Learner, by Willard Abraham. (2).

Dr. Abraham describes the most frequently mentioned techniques that teachers of slow learners use.

Target Series, by Regis Michelangelo and Others. Ebensburg, Pa.: Mafex Associates, Inc., 1963.

A series of nine booklets which contain the related academic instruction taught in the Cambria County Occupational Preparation School, Portage, Pennsylvania. This series was authored by men who either originated the school or are now connected with it.

AUDIO-VISUAL INFORMATION

Audio-Visual Education for the Retarded, by Katherine Cotter. (17).

The author reports the results of research on the most useful audio-visual materials in specific areas of teaching, including motion pictures, flat pictures, recordings, real objects and models, filmstrips and bulletin boards.

Coronet Films, Chicago, Ill.

A collection of twenty-six captioned films for use in the education of the slow learner. In these films, sight and sound reinforce each other; children see the words on the screen as they hear them in a simplified narration. Reading is motivated as children ride across the country with the Pony Express or investigate the life cycle of a butterfly. These films are said to be useful in helping the slow learner increase his reading and speaking vocabularies.

An Experimental Determination of the Value of Selected Visual Aids in Teaching Beginning Mechanical Drawing, by Everett Glazener. [unpublished dissertation], The Pennsylvania State University, 1958.

> The author stated that there appeared to be more interest, more attention, more general comprehension and understanding, less noise, and more motivation and participating by the students receiving selected visual aids than by the students in the control classes.

The Mentally Retarded Child and Educational Films, by Willard Abraham. (1).

> The author discusses the use of educational films in attempting to teach mentally retarded students. He gives the results of research carried out on the effectiveness of educational films. He reports what teachers say on use of films for mentally retarded students, and makes specific recommendations as to the use of films. He stresses the fact that motivation based on success and concrete activities and materials is important.

Selective Audio-Visual Instruction for Mentally Retarded Pupils, by Edward Goldstein (33).

> Goldstein reports the results of research on whether educable mentally retarded children, who have difficulty with abstract symbols, learn and retain more facts from viewing the content of a selected motion picture than when the same material is presented in the traditional method. He proves that factual learning of educable retarded children could be facilitated by the use of selected motion pictures of concrete rather than abstract content. This book contains an excellent bibliography of 16 mm films for retarded pupils.

"Sources of Audio-Visual Materials for Industrial Education," by David Barnard. Industrial Arts and Vocational Education, LIV (February 1965), 52.

> This is a valuable source guide, not only for films, but for other media including programmed instruction, filmstrips, tapes, 8 mm films, kinescopes, flat pictures, recordings, video tapes, slides and transparencies, models, mock-ups, cutaways, charts and maps, and cross-media kits.

PROGRAMMED INSTRUCTION

"Automated Teaching Programs with Mentally Retarded Students," by J. E. Price. (63).

> A study suggesting that automated teaching is a useful supplementary approach in teaching slow learning students. The retarded child does adapt to programmed learning. Students learned the same amount of material as the control group but in less time.

A High School Work-Study Program For Mentally Subnormal Students, by Oliver Kolstoe and Roger Frey. (45).

> The authors mention two aspects of teaching machines: they do not represent the same kind of "authority figure" and the ability to master each step seems to be more critical for the subnormal than for others. (In an unpublished study by Frey and Rainey in 1963, teaching machine materials were found to be highly useful with mentally subnormal students.)

"In Slow Gear: Programmed Learning Techniques," by Alan Riedesel. Instructor, LXXIII (November 1963), 28.

> The author explains the procedure to be used in making up programmed learning sheets. Several examples are included in the article. Mr. Riedesel stresses the importance of wording the questions simply, having one specific answer, using repetition, and making sure that the individual has a chance to be successful most of the time.

"Learning is Fun - with the Dictaphone Electronic Classroom," by Beulah Brown. The Journal of Negro Education, XXXV (Summer 1966), 246-251.

> In this article Miss Brown discusses the use of the Dictaphone Electronic Classroom as an aid to learning with particular emphasis on the needs of the slow learner. The author found the equipment useful for remedial review and clinical practice.

"Programmed Learning - One Avenue to the High School Diploma," by Charles Peterson. (62).

> The author discusses the following advantages of programmed learning: the pupil can work at his own ability level and rate of learning; the teacher can conduct several different subjects in one classroom at the same time; the teacher can handle a large group of students; and, students can work with the materials as many hours as the classroom is open.

"Retention in Educable Retarded Subjects for Two Methods of Instruction," by Glenn A. Vergason. American Journal of Mental Deficiency, LXX (March 1966), 685-686.

> The author compares the results of teaching a list of sight vocabulary words by automated and traditional methods. Differences in retention did not appear after one day; but, after this, there were significant differences indicating superior retention for words learned by the automated procedure.

"Teaching Machines and the Mentally Retarded," by Leonard Blackman. (6).

> A teaching machine involving tapes and film strips was developed especially for slow learners. The film is projected on a screen from within the console with alternative answers to each frame lined up next to four buttons in vertical order along the right side of the screen. The audio portion of each frame is presented through earphones worn by students.

ORGANIZATION AND ADMINISTRATION

Team Teaching

A Curriculum Guide for Teachers of Mentally Retarded Pupils, by Board of Education, Detroit Public Schools. Detroit, Mich.: Detroit Public Schools, 1964.

> This guide presents a detailed outline of concepts to be taught to educable mentally retarded students. Five areas of living are covered: (1) Home and Family Living; (2) Health; (3) Democratic Group Living; (4) Vocational; (5) World Around Us.

"Increasing Cooperation Between School Programs For The Retarded and Vocational Rehabilitation Services: An Experimental Teaching Approach," by William J. Younie. Mental Retardation (June 1966), 9-14.

> The author describes an experimental teaching project designed to help teachers bridge the gap in assisting the retarded to make a successful transition from school to work. The project's materials and techniques have been prepared to help pre-service and inservice teachers improve the rehabilitation readiness of their pupils.

"Team Teaching in Industrial Education," by Darl Hulit. Industrial Arts and Vocational Education, LX (May 1966), 22-23.

The author has included a list of techniques used in team teaching. He suggests that two or more teachers in the same area work cooperatively to pool their resources, that a highly skilled teacher use assistants who are competent in the trade but have not acquired the teaching skills or qualifications to work independently, and that class members themselves supervise other students.

Class Size

"Class Size Affects Learning Ability," by W. P. McLoughlin. School Executive, LXXV (March 1956), 91-93.

This article reports the advantages of having small classes and the relationship between class size and effective instruction.

"What About Class Size?" Bernard McKenna. New York State Education, LXV, no. 2 (November 1957), 100-101.

McKenna cites guidelines with the understanding that no one rule exists and that no absolute decision can be made upon the appropriate range of class sizes, either in elementary or in high school, without considering certain related policies. (He lists ten.)

Continuous Progress Program

"A Continuous Progress Program: The Slow Learner in a New Setting," by Claire Cirone and Patricia Emerson. (13).

A report on an experiment with a group of students who were placed in a language arts time block where they were allowed to work at their own speed but who were permitted to return to home rooms and mingle with other children of varying degrees of social, physical, and mental abilities.

Work-Study Programs

"An Examination of Selected Pre-Vocational Techniques used in Programs for the Mentally Retarded," by G. E. Milligan. Mental Retardation, I (1963), 230-237.

> A discussion of realistic vocational appraisals achieved by the work-sample approach, by client performances in sheltered workshops, and by psychometric evaluation of personality, intelligence, interests, aptitudes and psychomotor skills.

A High School Work-Study Program for Mentally Subnormal Students, by O. P. Kolstoe and R. M. Frey. (45).

> This text presents a detailed discussion of the problems and procedures involved in developing a secondary work experience program for retarded youth. It deals specifically with historical considerations, curricular needs of the educable mentally retarded, organization and administration of work experience, course of study, and sheltered workshops. Also included are a variety of work experience and job analysis forms.

"Part-time Employment Program for Slow Learning Adolescents," by Koma Stinchcomb. Baltimore Business Education, XXXII (1954), 5-13.

> A helpful guide in gradually moving the retarded adolescent from the school to an occupation by use of a part-time employment program.

"Project III Program: Job Education," by M. Silber and M. S. Paskell. High Points, XLIX (April 1964), 20-29.

> Discusses a project helpful in preventing dropouts. Sixteen-year-old students were allowed to transfer from school to a Job Education Class. Here they received information on jobs and received individual guidance until placed on a job.

A Study of Curriculum Development in the High School Cooperative Program, by U.S. Department of Health, Education, and Welfare. Washington, D.C.: U.S. Government Printing Office, 1960.

> A study of how the high school cooperative program introduces the student to the distributive education field. On-the-job training in distributive occupations is combined with classroom instruction. Discusses how community businessmen are often the key to the success of this program.

Work-Study Programs for Alienated Youth: A Casebook, by G. W. Burchill. (8).

This useful reference describes in detail outstanding work-study programs (nine of them) aimed at the prevention of delinquent behavior and the rehabilitation of alienated youth.

Guidance

Basic List of Occupations: Keyed to . . . occupational groupings, industry groupings, predominent interests, necessary aptitudes, preferred education, job families. Los Angeles, Cal.: Evaluation and Research Section, Los Angeles City School Districts, 1963.

"An attempt to expand, within reason, the range of occupations which can be brought to the attention of the student." Includes occupations in which large numbers work plus selected semiskilled and unskilled occupations.

Careers Related to Industrial Education, Los Angeles, Cal.: Division of Instructional Services, Los Angeles City Schools, 1964.

A collection of career guidance outlines designed to assist industrial education teachers. Outlines are included for several careers related to each of the following industrial arts subject areas: auto mechanics, drafting, electronics, graphic arts, industrial arts, metal and woodworking.

"Counseling the Mentally Retarded," by Lloyd Yepsen. *American Journal of Mental Deficiency*, LVII (1952), 205-213.

The author discusses the techniques and methods used in counseling the mentally retarded. He tells how techniques are modified to suit the special problems of the slow learners.

Dictionary of Occupational Titles, Vols. I and II. (24).

Reference works covering the range of existing jobs from the highest levels to the unskilled areas. Very useful in job description and job analysis.

Educators Guide To Free Guidance Material, by Educators Progress Service. Randolph, Wis.

> An excellent guide of free materials relating to a job analysis helpful to the slow learner. Also included are many other materials counselors will find useful in helping the slow learning student.

Guide To Jobs For The Mentally Retarded, by R. O. Peterson and E. M. Jones. Pittsburgh, Pa.: American Institute for Research, 1964.

> Contains valuable information on school and community work-study programs, workshops, evaluation, and placement. It presents detailed job analysis information on a variety of job areas for the slow learner. Good for senior high and adult level.

Methods of Vocational Guidance, by Gertrude Forrester. Boston: D. C. Heath and Co., 1951.

> This book is devoted to specific methods of helping youth plan their vocational lives. While it attempts to embody a sound theory of vocational guidance, the description of methods are the chief substance.

Occupational Handbook: Employment Information on Occupations for use in Guidance, 1966-67 Edition, Bulletin No. 1450, United States Department of Labor, Washington, D.C.: U.S. Government Printing Office.

"The Role of Counseling in a Placement Program For Mentally Retarded Females," by Frederick C. Thorne and Katherine Dolan. *Journal of Clinical Psychology*, IX (1953), 110-113.

> This paper summarizes the methods and results which have been developed over a period of more than twenty-five years in a placement program for mentally retarded females. General principles of counseling and guidance are discussed.

Teacher's Guidance Handbook, by Robert F. DeHaan and Jack Kough. Secondary School Edition, Vols. I and II. (21).

> This is a very useful teaching-guidance series that special class teachers may use. The materials in Volume I are designed to help the teacher organize the identification process and simplify record keeping; the materials in Volume II to provide specific techniques and procedures for helping exceptional children and youth in the classroom.

SUBJECT AREAS

Language Arts

Adult Basic Education Books - I Want To Learn English, Adult Reader, I Want To Read and Write, My Country, by H. Smith, E. Smith and M. Robertson. Austin, Tex.: Steck-Vaugh Co.

> This highly functional series is related to the adult's way of life and is built around adult interests, activities, and problems. The texts are well-illustrated and deal with opportunities in various kinds of work. Recommended for use with the older retardates.

Adult Readers, by the Reader's Digest Services, Inc. Pleasantville, N. J.

> This is a useful series of twelve, 32-page work-type readers for adults learning to read and adolescents who need remedial help. They have a high-interest, mature appearance and are generally functional in nature with some degree of vocabulary control reported. The stories were originally in the Reader's Digest and then rewritten for this series. The exercises accompanying each story are generally simplified and appropriate for older, retarded youth.

Basic English in the Secondary School, Chicago Public Schools, 1962.

> A program in Basic English including "goals for the student," "tips for the teacher," eleven resource units, a textbook list, and bibliography for teachers.

Books for the Slow Learner, Yorktown Heights, N. Y.: Center for Educational Services and Research, February 1966.

> A bibliography of books for the slow learner graded according to reading level and interest level. Listing includes anthologies, business and social skills, English, history, leisure reading, reading improvement, mathematics, music, and science.

"Color: A New Dimension in Teaching Reading," by Sister Mary Raphael. Catholic School Journal, LXVI (October 1966), 56-57.

> "Words in Color," developed by Dr. Caleb Gattegno, was found to be particularly good in helping students learn letters pronounced one way in one word and another way in other words. For example, all letters which are pronounced "oo" as in two, crew, etc., are colored green. This program has been used successfully to teach nonreaders of all ages.

A Comparative Study of Intellectual, Neurological, and Perceptual Processes, as Related to Reading Achievement of Exogenous and Endogenous Retarded Readers, by Rudolph Capobianco and Ruth Funk. Syracuse, N.Y.: Research Institute, Syracuse University, 1958.

A study emphasizing that teaching techniques should be based on symptomatology rather than etiology.

Creative Techniques for Teaching the Slow Learner, by Lillian C. Howitt. Englewood Cliffs, N.J.: Teachers Practical Press, Inc., 1964.

The author stresses the need for making lessons concrete. She discusses the dramatic approach giving sample lessons. Reading is emphasized. Many methods and techniques of teaching slow learners are described.

A Developmental Vocabulary Check-List for the Mentally Retarded, by the State Department of Public Instruction. Madison, Wis.: 1959.

This booklet contains a basic functional vocabulary for use in preparing reading materials for the mentally retarded.

Education For The Slow Learners, by Orville Johnson. (41).

In his section on language arts, the author points out that the entire program in language arts and communications instruction should be developmental in nature - that the retarded development of the slow learners will require an extended readiness program and a wider spacing of the introduction of successive skills than is true for normal students.

A High School Work-Study Program For Mentally Subnormal Students, by Oliver Kolstoe and Roger Frey. (45).

Outlines are given for practical programs in language arts. Also included is a list of materials which have usable sections for teaching language arts.

Home and Family Life Series, by Arthur Croft Publications. New London, Conn.

The series of books was originally designed for adult education under the Literacy Education Project of the U.S.O.E. The readable format, lower-level vocabulary, and high interest content make them appropriate for selected use with older retardates.

Learning and Writing English, published by the Steck Co. Austin, Tex.: 1950.

This book has exercises in basic writing and English which would be very helpful to the slow learner. The book is written for the foreign-born.

Most Used Words For Spelling, by Fern Tripp. Dinuba, Calif.: Fern Tripp.

This is a series of three, progressively arranged listings of the most used functional words selected from all grade levels. Designed for slower learners, remedial instruction, and beginning adult classes, each book contains thirty lessons organized into the "Think-Practice-Use-and-Retest Method."

Remedial Reading Drills, by Thorleif Hegge, Samuel A. Kirk and Winifred D. Kirk. Ann Arbor, Mich.: George Wahr, 1953.

The authors discuss methods of teaching phonics. The method is highly organized and incorporates the use of individual sounds and initial and final families of sounds. The authors stress the fact that phonics, like other skills, depends upon readiness.

Remedial Training Manuals, by A. Gillingham and B. Stillman. Cambridge, Mass.: Howard A. Doyle Printing Co., 1965.

Based on the Samuel Orton methodology, these manuals contain detailed information on remedial techniques for children with specific learning disability in reading, spelling, and penmanship. They appear especially applicable to higher ability students who are remedial cases. Many of the specific remedial techniques may be useful with the educable mentally retarded and others with learning disabilities.

"The Screen and the Book: A Solution for Slow Learners," by Frank Manchel. (48).

The author discovered that, by using films of plays and novels along with paperbacks, the plays and novels took on more meaning for the slow learner. A list of films found useful with the slow learner is included.

Sounds for the Secondary School, published by Media. Van Nuys, Cal.

This is an organized text-workbook that reviews basic word analysis skills for the older student. Material is presented in an interesting and adult manner. It appears useful for: (1) secondary remedial reading; (2) culturally deprived adolescents; and (3) adult education for functional illiterates.

Teaching High School Students to Read, by Stella S. Center and Gladys L. Persons. New York: Appleton-Century-Crofts, 1937.

The authors report on studies which indicate the need for more instruction on the elementary level to help the slow learner cope with secondary school problems.

Mathematics and Science

Arithmetic Handy Pack, by Fern Tripp. Dinuba, Calif.: Fern Tripp.

Special Teaching aids in arithmetic for the retarded. Some sample materials include: practice calendar pads, practice check blanks, U.S. money, number tables, important measures.

The Arithmetic Workbook, (Home and Family Life Series), by Arthur Croft Publications, New London, Conn.

A practical guide for students in learning the meaning and application of numbers. Designed for adult education.

Basic Mathematics I for the Secondary Schools.
Basic Mathematics II for the Secondary Schools.
Chicago: Board of Education, 1961.

A high school program in basic mathematics designed for students who enter the high school with less than a sixth-grade level of achievement in mathematics.

Biological Science: Patterns and Processes, [Part of the BSCS series in biology]. New York: Holt, Rhinehart [Book in preparation].

This book is being specifically tailored to the short attention span of the slow learner.

Biology and Human Progress, by Louis Eisman and Charles Tanzer. Englewood Cliffs, N.J.: Prentice-Hall, 1964.

The information is given in large print with many illustrations. It is especially designed for students who find it difficult to absorb the more abstract concepts of a biology course.

Everyday Business, by Gary D. Lawson. Sacramento, Calif.: Pierson Trading Co., 1958.

This book should be very useful in teaching the slow learner banking, budgeting, buying, federal income tax and insurance. Activity sheets are available in all of these areas.

"The Hidden Potential of Low Achievers," by Herbert Fremont and Neal Ehrenberg. *The Mathematics Teacher*, LIX (October 1966), 551-557.

By using special techniques and methods, the authors were able to teach the slow learners mathematics at the high school level.

"'Live' Insurance: An experience For Slow Learners," by M. C. Kovinow. *High Points*, XLVI (January 1964), 55-58.

In order to make insurance more meaningful in his mathematics class of slow learners, Mr. Kovinow formed an insurance company. The company offered opportunities for reinforcing basic mathematical concepts and for drilling arithmetic techniques within a meaningful framework.

Money Makes Sense, by C. Kahn and J. Hanna. San Francisco: Fearon Publishers, Inc., 1963.

This is a text-workbook used to teach the principles of arithmetic through the use of money. Students are given everyday problems in which they use U.S. money reproduced in actual size to solve problems. A teacher's manual is included. Secondary level.

"Recent Trends in Learning Theory: Their Application to the Psychology of Arithmetic," by T. R. McConnell. *Sixteenth Yearbook*, Washington, D.C.: National Council of Teachers of Mathematics,(1941), 279.

A number of guiding principles are listed applicable to the teaching of arithmetic to the slow learner.

Remedial Techniques in Basic School Subjects, by Grace Fernald. New York: McGraw-Hill Book Co., 1943.

The author's section on mathematics discusses special methods and techniques found to be effective in remedial teaching.

Teaching Arithmetic to Slow Learners and Retarded, by A. Feingold. New York: The John Day Co., 1965.

This is a teacher's manual containing prepared units of work in basic arithmetic. Could be useful for the slow learner.

Using Dollars and Sense, by Charles Kahn and Bradley Hanna. San Francisco: Fearon Publishers, Inc., 1963.

A simplified introduction to money is presented which has been found to be very useful with slow learners.

"When is Arithmetic Meaningful," by William Brownwell. Journal of Educational Research, XXXVIII (March 1945), 498.

The author discusses the need for a fundamental reorganization in the subject matter and teaching of arithmetic. He discusses methods to be used in making arithmetic meaningful.

Social Sciences

Education of the Slow Learning Child, by Christine Ingram. (39).

The author stresses the experience-unit technique. She presents a sample unit in social sciences.

High School History of Modern America, by B. Shafer, E. Augspurger and R. McLemore. Summit, N.J.: Doubleday, 1966.

This text is designed specifically for low-level readers at the secondary level. It is a complete U.S. history text correlated with U.S. History for High Schools.

The Library of American Heroes (A series of paper-bound biographies), by Follett, Chicago, Ill., 1965.

It contains a series of high-interest paper-bound biographies. Each book has a capsule biography introduction suitable for slow readers. The biographies of John Adams, Marquette and Joliet, Daniel Boone, Red Cloud, Christopher Columbus and Tom Paine are included.

A Modified History of the United States, by A. Manning. San Francisco, Calif.: Fearon Publishers, Inc., 1964.

A modified text on U.S. history for the slow learner at the secondary level. Historical facts are presented in short, readable sentences. An excellent vocabulary list is included in each chapter.

You and Your World, by W. Bolinger. San Francisco, Calif.: Fearon Publishers, Inc.

A text-workbook in social studies of practical material written for the slow learner. Helps the student understand more about himself, his family, his school, his city, his state and his country. Secondary level.

Vocational Instruction

Course Outlines, by Gordon L. Nelson. Maple, Wis.: Common Joint School District Number 1, 1963-64.

Outlines of vocational courses offered to educationally deficient pupils in Northwestern High School, Maple, Wisconsin.

"The Older Non-Academic Secondary Pupil," (A report from Surrey Education Research Association, England). New York Times: Education Supplement, Vol. 2554 (May 1, 1964), 1174.

A report on experiments with the "Newsom" classes: Three periods are set aside weekly for students to help elderly people work in day nurseries, to visit homes for the aged and the blind, and to help school secretaries or head teachers.

"A Guide For The Development Of Motor Skills," by Dallas Pankowski. Industrial Arts and Vocational Education, LIV (February 1965), 24-26, 62.

This is an excellent article on teaching the development of motor skills. In it, Pankowski has included a list of specific techniques and methods. He stresses the importance of involving the total organism when teaching motor skills.

"Hand Skills In Industrial Arts," by Irwin Lathrop and Ernest Rawson. Industrial Arts and Vocational Education, LV (June 1966), 27-28.

Authors stressed the importance of selecting projects that are basic and allowing for the different levels of maturation within the class.

"How to Teach Clerical Practice to Slow Learners," by A. Ellenbogen. Business Education World, XLIV (April 1964), 26.

Mr. Ellenbogen set up a model office for secretarial and clerical practice. As a policy all materials used in instruction were kept basic in style and content and no pupil work was accepted unless it was perfect. Students were permitted to supply test questions on the subject matter, a practice which worked very well with the slow learners.

"Improved Check-off Record," by V. E. Proadbent. Industrial Arts and Vocational Education (February 1965).

The author devised a T-square permanently attached to a bulletin board on which a chart is taped. It is an easy, efficient method of recording all the multitudinous activities of the student. This record proved to be an incentive to the course.

Keyboard Town Story, by A. Gallagher and J. Gallagher. Urbana, Ill.: R. W. Parkinson and Associates, 1965.

A technique used to teach the touch system of typewriting to slow learners. This is done by the association of story characters with positions on the keyboard. Charts are included with the manual.

"Making Transparent Overlays in the Drafting Classroom," by John Lantz. Industrial Arts and Vocational Education (February 1965), 34-35.

The author uses an overhead projector and allows the student to draw at the same time that the procedure is being given to him in picture form.

Occupational Education in the Altoona Senior High School. Altoona, Pa.: Altoona School District, 1962.

This book contains instructional units and an evaluation of a work-experience program. Included are forms currently used in occupational education.

Selling One Guy Named Larry, a 16mm, b & w film. New York: National Association for Retarded Children.

This film deals with the effective employment of mentally retarded youth and adults. It shows the retarded successfully at work as clerks, mechanics, stock boys, etc. It is recommended for use with such groups as community service organizations, prospective employers, teachers and parents.

Snip, Clip, and Stitch, by E. Hartley. Urbana, Ill.: R. W. Parkinson and Associates, 1965.

Hartley describes a homemaking course for slow learning girls. Included is a workbook covering the most important concepts and skills in clothing construction. A teacher's manual is also available.

Social Skills for Living and Learning: A Guide for Teachers of Children with Retarded Mental Development, by Margaret Neuber. University Park, Pa.: Pennsylvania State University, Special Education Workshop, 1959.

Written for teachers at the senior high school level, this book discusses the world of work, home making and family living, and citizenship.

"Teaching Motor Skills In-Depth in Vocational Areas," by E. Robert Rudiger. *Industrial Arts and Vocational Education*, LIV (February 1965), 29-30.

This is a booklet stressing the importance of teaching skills in the vocational schools. According to Rudiger, not all industry is completely automated. Skills should be taught by bringing in outside help from various industries. In this way, teachers will be able to keep up-to-date with new developments.

Three-Dimensional Teaching Aids for Trade and Industrial Instruction, compiled by Harold J. Rosengreen. Office of Education, Washington, D.C.: U.S. Government Printing Office, 1961.

"Vocational Training and Job Adjustment of the Mentally Deficient," by Arthur Hitchcock. *The American Journal of Mental Deficiency*, LIX (1954), 100-106.

In this article the author stresses the importance of the counselor's working with the slow learner in vocational planning, training, placement and job adjustment.

Obtaining and Holding a Job

A Handbook for You the Worker. Baltimore: Division of Special Education, Baltimore City Schools, February 1963.

A very practical guide to job responsibilities and adjustments, especially written for the academically disadvantaged. In addition to the usual "do's and don'ts" of punctuality, appearance, etc., this handbook includes such topics as "Entrances and Exits," "Absence from Work," "Packages," "Identification," "Emergencies" and "Solicitations."

From School To Work. Los Angeles, Calif.: Division of Instructional Services, Los Angeles City Schools, 1966.

Written for use with high school pupils, this publication helps students determine the job for which they are fitted and acquaints them with the general requirements of applying for and succeeding on a job.

The Job Ahead, by H. Goldberg and W. Brumber. Chicago, Ill.: Science Research Associates, Inc., 1963.

"A hardbound multilevel (three levels available) textbook emphasizing in story-form the occupational attitudes and skills needed for success on the job and in society." Student exercise books are also available.

Job Guide For Young Workers, by the U.S. Employment Service. Washington, D.C.: U.S. Government Printing Office, 1964.

Booklets present information on the importance of jobs, ways and means for getting a job, and kinds of jobs. Job information on duties, characteristics of jobs, qualifications, prospects, and advancement.

Occupational Education Filmstrips. Jamaica, N.Y.: Eye Gate House, Inc.

A series of filmstrips dealing with various aspects of employment and some of the kinds of jobs that are covered in work experiences programs for the slow learner. Experiences and activities illustrated are at a simplified, concrete level. For use with secondary students. Filmstrip titles are:

- The Job Interview
- Stocker In A Supermarket
- The Waitress
- Fixing A Flat Tire
- How To Use Your Checkbook
- The Variety Store
- The School Cafeteria Worker
- The Nurse's Aid
- The Gas Station Attendant

Teen-Agers Prepare for Work, by Esther Carson. Castro Valley, Calif.: Esther Carson, 1961.

Teen-Agers Prepare for Work: Book I is keyed to work experiences for factory workers, messenger service, food service, dishwashing, babysitting, and gasoline stations. It contains stories, worksheets, and activities.

Book II discusses self analysis, work experience, getting a job, holding a job, and spending the income. It also contains stories, spelling and activities.

FRANKLIN COUNTY SCHOOL BOARD

George W. Fries, President
Geraldine McNitt, Secretary

Wilbur Kline
Walter Kershner

Daniel Rosenberger
Richard F. Rice

FRANKLIN COUNTY AREA VOCATIONAL-TECHNICAL SCHOOL

Dr. Frank L. Coffey
Administrative Officer

G. Carl Wengert
Director

JOINT SCHOOL COMMITTEE

Wilbur R. Kline, President
Martha E. Shearer, Secretary

Homer K. Zimmerman
Jay E. Karper
William Knupp
Nathan Lehman

Robert Shearer
John Young
John Yohe
John Zimmerman

PROFESSIONAL ADVISORY COMMITTEE

Dr. Edson Powell, Chairman

James K. Gibboney
Dr. Frank L. Coffey
William Conrad

Frederick Krauss
James Seiler
Dr. Jacob Wentzel

The work presented or reported herein was performed pursuant to a Grant from the U. S. Office of Education, Department of Health, Education, and Welfare.